National Space Transportation System

FLIGHT DATA FILE

JSC-20948-26

Crew Activity Plan

STS-26

(Cycle 3R Trajectory)

Mission Operations Directorate
Operations Division

Final, Rev C
September 16, 1988

EVENT	CDT		
Launch	09:03	Tue	Oct 4
TDRS Deploy	15:17	Tue	Oct 4
EDW Landing	10:00	Sat	Oct 8

NASA

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas

MISSION OPERATIONS DIRECTORATE

CREW ACTIVITY PLAN
STS-26

FINAL, REVISION C
September 16, 1988

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482#: CAP-566 CAP-567 CAP-568	EXEMPTION#: 1

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Book Manager	DH4/R. Schaf	483-4468
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Pointing	DH4/W. Ober	483-4459

LIST OF EFFECTIVE PAGES

FINAL 04/18/88 REV B 08/19/88
REV A 07/11/88 REV C 09/16/88

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4C-3..... 26/FIN C
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4D-4..... 26/FIN C
4D-5..... 26/FIN C
4D-6..... 26/FIN C
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4D-9..... 26/FIN C
4D-10..... 26/FIN C
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5-4..... 26/FIN C
5-5..... 26/FIN C
5-6..... 26/FIN C
5-7..... 26/FIN C
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6-3.....* 26/FIN C
6-4.....* 26/FIN C
6-5.....* 26/FIN C
6-6.....* 26/FIN C
6-7.....* 26/FIN C
6-8.....* 26/FIN C
7-1.....* 26/FIN C
7-2.....* 26/FIN C
7-3.....* 26/FIN C
7-4.....* 26/FIN C
7-5.....* 26/FIN C
7-6.....* 26/FIN C
7-7.....* 26/FIN C
7-8.....* 26/FIN C
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7-11.....* 26/FIN C
7-12.....* 26/FIN C

(*) - Omit from flight book

7-13.....* 26/FIN C
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7-15.....* 26/FIN C
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UNIV PTG (Back of DAP Book Front Cover)	*	7-4	CAP/26/0/BAS
DAP A TOC	*	7-5	CAP/26/0/BAS
DAP A1	*	7-5	CAP/26/0/BAS
A1	*	7-5	CAP/26/0/BAS
DAP A2	*	7-6	CAP/26/0/BAS
A2	*	7-6	CAP/26/0/BAS
DAP A3	*	7-6	CAP/26/0/BAS
A3	*	7-6	CAP/26/0/BAS
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A4	*	7-7	CAP/26/0/BAS
DAP A5	*	7-7	CAP/26/0/BAS
A5	*	7-7	CAP/26/0/BAS
DAP A6	*	7-8	CAP/26/0/BAS
A6	*	7-8	CAP/26/0/BAS
DAP A7	*	7-8	CAP/26/0/BAS
A7	*	7-8	CAP/26/0/BAS
DAP A8	*	7-9	CAP/26/0/BAS
A8	*	7-9	CAP/26/0/BAS
DAP A9	*	7-9	CAP/26/0/BAS
A9	*	7-9	CAP/26/0/BAS
DAP A10	*	7-10	CAP/26/0/BAS
A10	*	7-10	CAP/26/0/BAS
DAP A11	*	7-10	CAP/26/0/BAS
A11	*	7-10	CAP/26/0/BAS
(Blank)	*	7-11	CAP/26/0/BAS
DAP B TOC	*	7-11	CAP/26/0/BAS
DAP B1	*	7-11	CAP/26/0/BAS
B1	*	7-11	CAP/26/0/BAS
DAP B2	*	7-12	CAP/26/0/BAS
B2	*	7-12	CAP/26/0/BAS
DAP B3	*	7-12	CAP/26/0/BAS
B3	*	7-12	CAP/26/0/BAS
DAP B4	*	7-13	CAP/26/0/BAS
B4	*	7-13	CAP/26/0/BAS
DAP B5	*	7-13	CAP/26/0/BAS
B5	*	7-13	CAP/26/0/BAS
DAP B6	*	7-14	CAP/26/0/BAS
B6	*	7-14	CAP/26/0/BAS
DAP B7	*	7-14	CAP/26/0/BAS
B7	*	7-14	CAP/26/0/BAS
DAP B8	*	7-15	CAP/26/0/BAS
B8	*	7-15	CAP/26/0/BAS
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DAP Book (Back Cover)	*	7-16	CAP/26/0/BAS

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INTRODUCTION

The STS-26 Crew Activity Plan is the flight data file article that contains the on-orbit timeline. It does not contain the detailed timelines that are covered in the Ascent, Post Insertion, Deorbit Prep, and Entry Checklists. The detailed deploy procedures required during the deploy timeframe are in the IUS Deploy Checklist. For continuity, the entire flight is shown in the summary level timeline.

This on-orbit timeline satisfies the objectives specified in the Flight Definition and Requirements Directive and the requirements of the STS-26 Flight Requirements Document. This Crew Activity Plan, as part of the Flight Data File, meets the specifications of the Cycle 3 version of the STS-26B Flight Initialization Data Pack. (PCN-3)

The flight profile used for this Crew Activity Plan is for a launch date of October 4, 1988, at 09:03 CDT. Orbiter inertial attitudes are expressed relative to a Mean of 1950 (M50) reference frame.

JSC-22354 Crew Scheduling Constraints (Appendix K, CPMP), Basic, March 1987, has been used to build the timelines contained in this Crew Activity Plan. The Flight Day 2 unscheduled EVA plan in Section 4-D is specifically addressed in approved Exemption Request #1 to this document.

The timelines published in this Crew Activity Plan assume that crew wakeup on launch day will occur at L-4:30, increasing the crew awake time before launch to 4 hours and 50 minutes.

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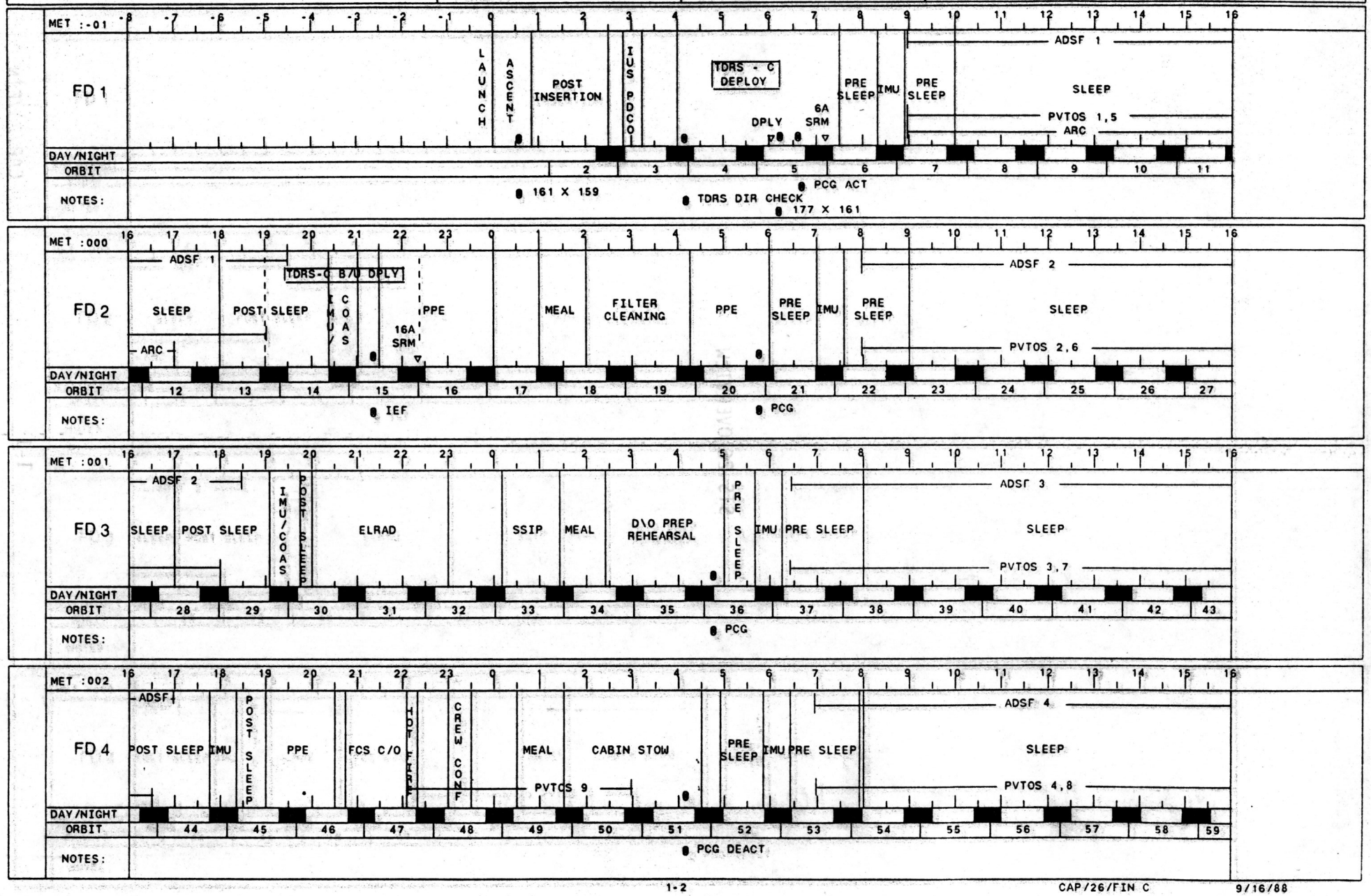
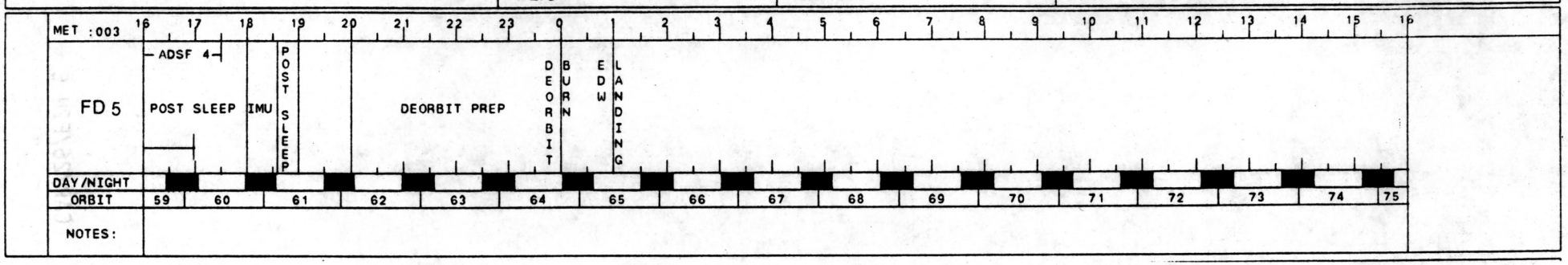
STS-26 OVERVIEW

FLIGHT	STS 26	EDITION	FINAL, REV C	PUB. DATE	9/16/88



FLIGHT	STS 26	EDITION	FINAL, REV C	PUB. DATE	9/16/88



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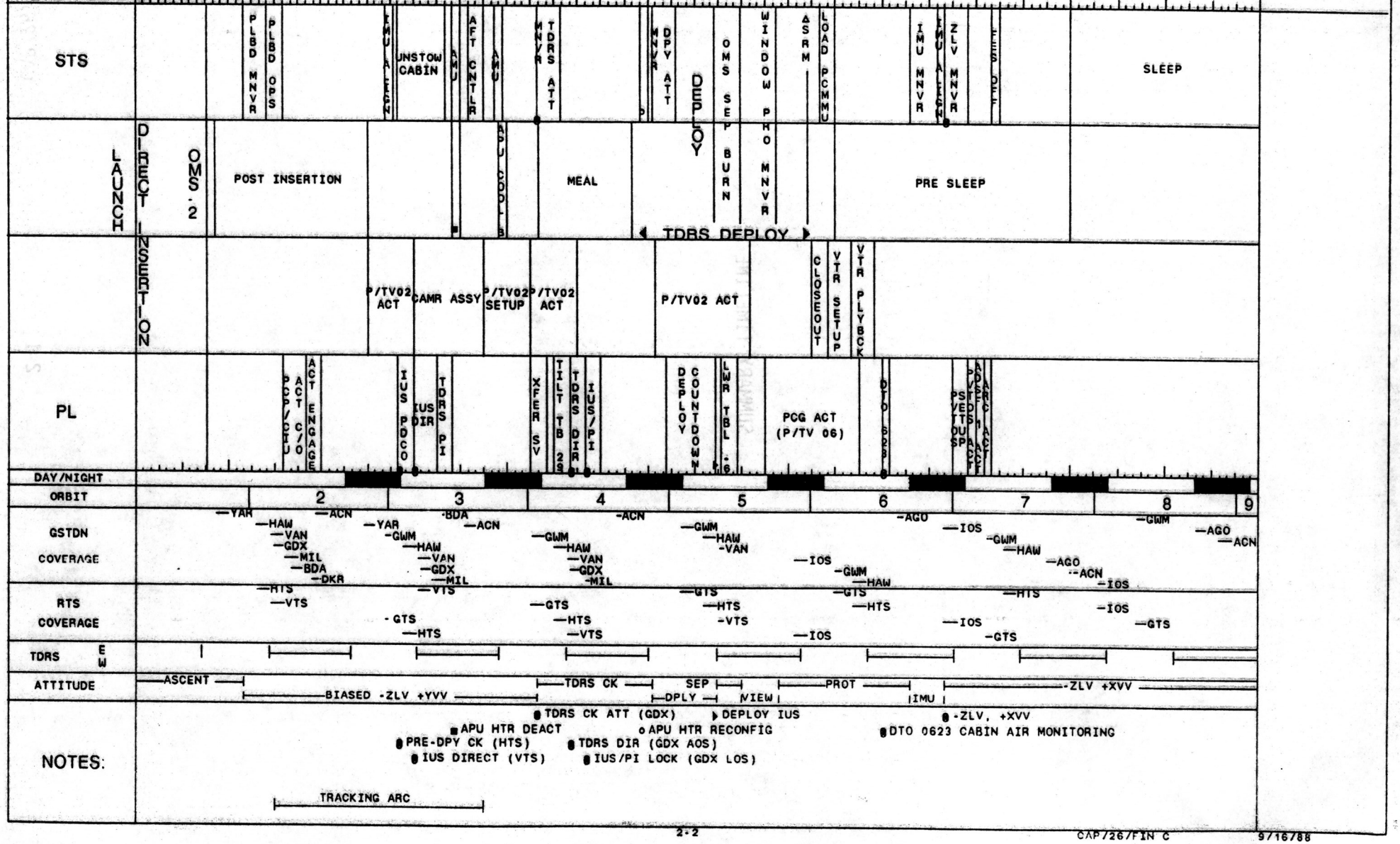
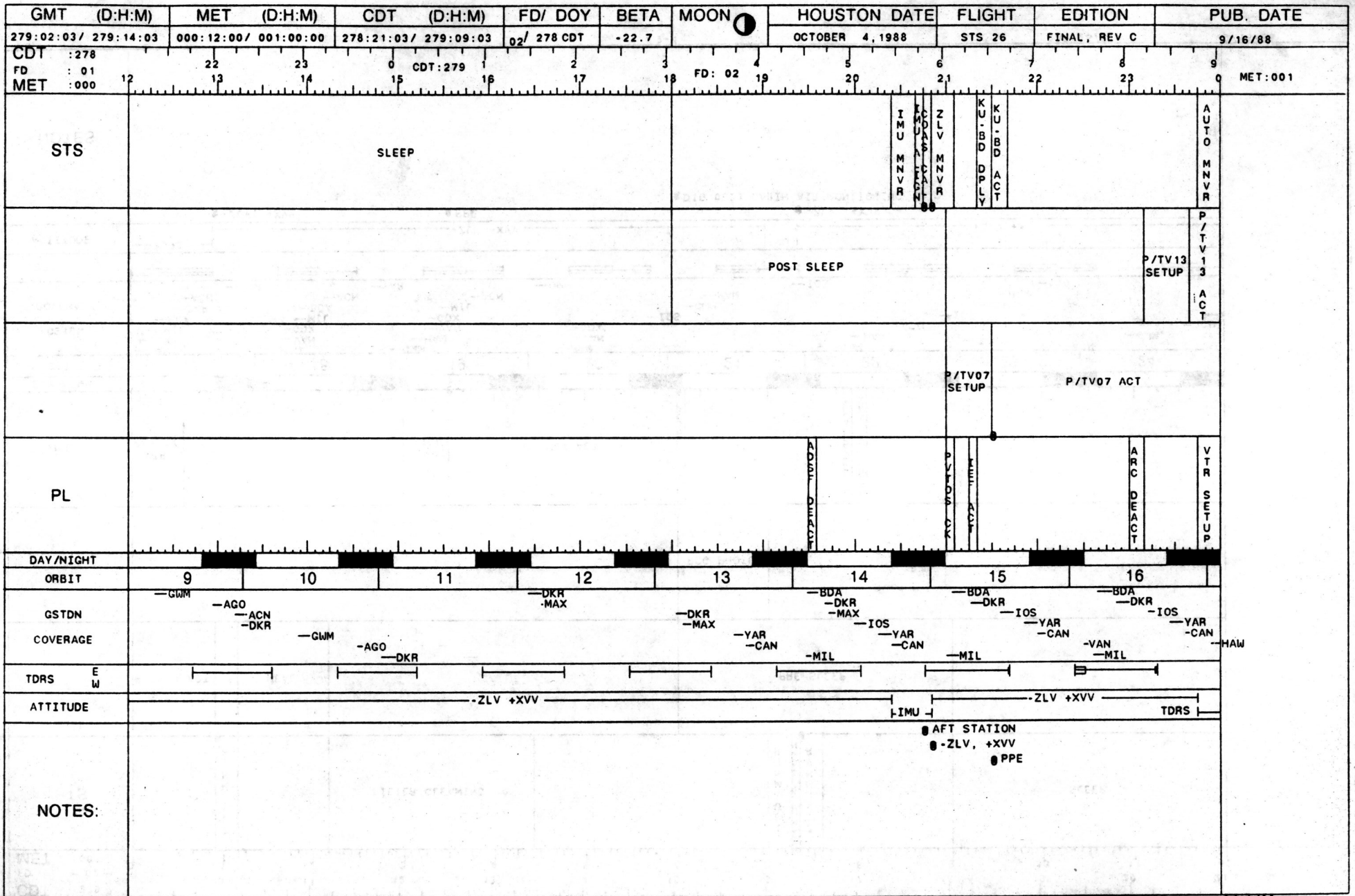
SUMMARY TIMELINE

SUMMARY TIMELINE

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
278:14:03/ 279:02:03	000:00:00/ 000:12:00	278:09:03/ 278:21:03	01 / 278 CDT	-24.0		OCTOBER 4, 1988	STS 26	FINAL, REV C	9/16/88

CDT :278
FD : 01
MET :000




GMT (D:H:M)
279:02:03/ 279:14:03
MET (D:H:M)
000:12:00/ 001:00:00
CDT (D:H:M)
278:21:03/ 279:09:03
FD/ DOY
02/ 278 CDT
BETA
-22.7
MOON
HOUSTON DATE
OCTOBER 4, 1988
FLIGHT
STS 26
EDITION
FINAL, REV C
PUB. DATE
9/16/88
CDT :278
FD : 01
MET :000
CDT:279
FD: 02
MET:001
STS
SLEEP
IMU MNVR
ZLV MNVR
KU-BD DPLY
KU-BD ACT
AUTO MNVR
POST SLEEP
P/TV13 SETUP
P/TV13 ACT
P/TV07 SETUP
P/TV07 ACT
PL
ADSF DEACT
ARC DEACT
VTR SETUP
DAY/NIGHT
ORBIT
9
10
11
12
13
14
15
16
GSTDN
COVERAGE
GWM
AGO
ACN
DKR
GWM
AGO
DKR
DKR
MAX
DKR
MAX
YAR
CAN
BDA
DKR
MAX
IOS
YAR
CAN
MIL
BDA
DKR
IOS
YAR
CAN
MIL
BDA
DKR
IOS
YAR
CAN
VAN
MIL
HAW
TDRS
E
W
ATTITUDE
-ZLV +XVV
IMU
-ZLV +XVV
TDRS
AFT STATION
-ZLV, +XVV
PPE
NOTES:

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
279:14:03/ 280:02:03	001:00:00/ 001:12:00	279:09:03/ 279:21:03	02/ 279 CDT	-21.2		OCTOBER 5, 1988	STS 26	FINAL, REV C	9/16/88

CDT :279
FD : 02
MET :001

10 11 12 13 14 15 16 17 18 19 20 21
0 1 2 3 4 5 6 7 8 9 10 11 12

STS: ZLV MNVR; FILTER CLEANING; IMU MNVR; IMU ALIGN; ZLV MNVR; SLEEP

P/TV13 ACT; **MEAL**; **PRE SLEEP**

PCG PHOTO

PL: VTR PLYBCK; P/TV07 SETUP; P/TV07 ACT; DTO 623; PYTDS ACT; ADSF2 ACT

DAY/NIGHT

ORBIT: 17 18 19 20 21 22 23 24

GSTDN COVERAGE:
- 17: VAN, GDX, MIL, BDA, DKR, ACN, YAR
- 18: HAW, VAN, GDX, MIL, BDA, ACN, YAR
- 19: GWM, HAW, VAN, GDX, MIL, ACN, GWM
- 20: HAW, VAN, GDX, IOS, GWM, HAW, IOS
- 21: GWM, HAW, AGO, IOS, GWM, HAW, AGO
- 22: ACN, GWM, ACN
- 23: GWM, AGO, ACN
- 24: GWM, AGO, ACN

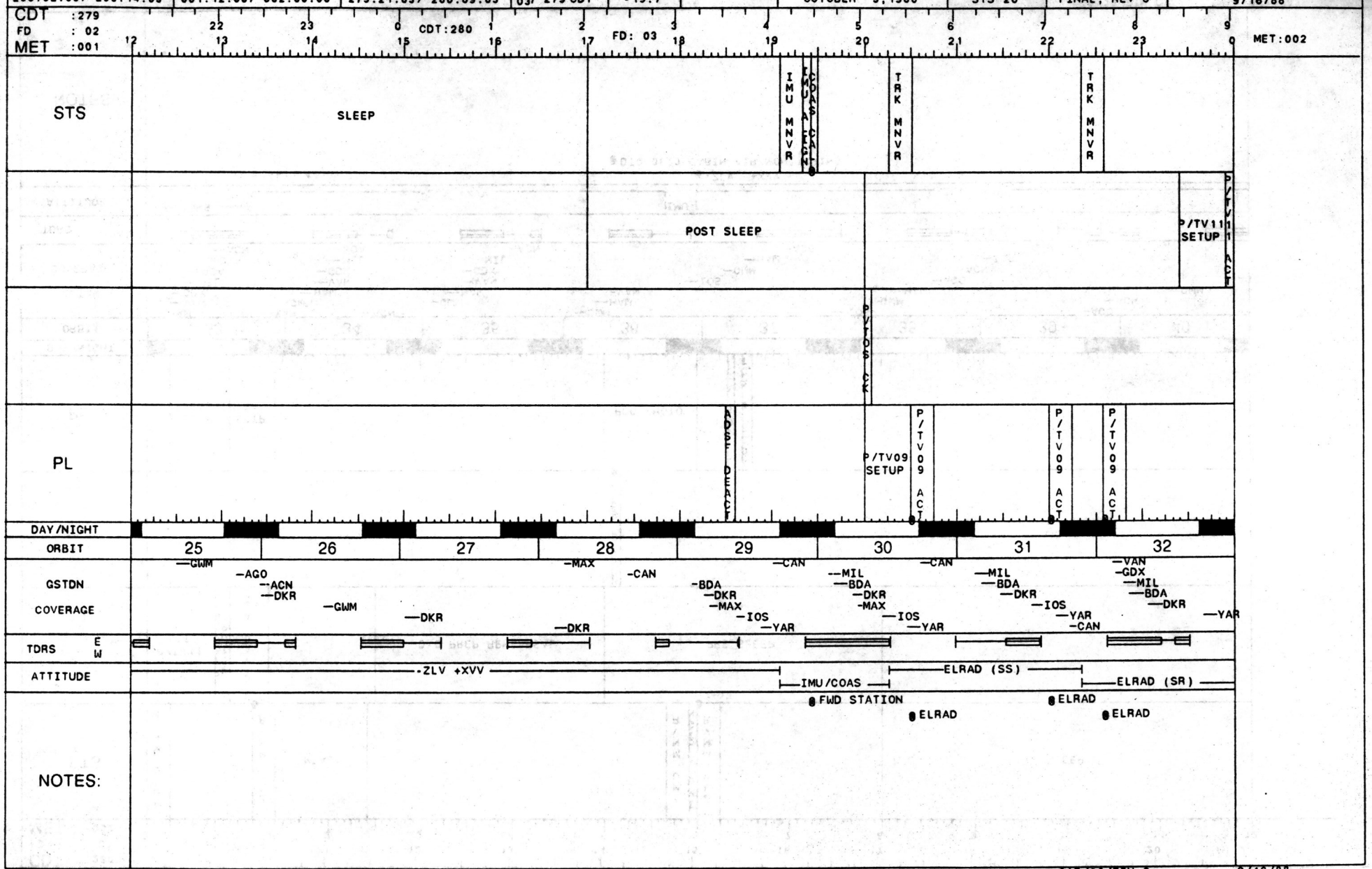
TDRS E W

ATTITUDE: TDRS; ZLV +XVV; IMU; ZLV +XVV

- -ZLV, +XVV
- PPE
- -ZLV, +XVV
- DTO 0623 CABIN AIR MONITORING

NOTES:

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
280:02:03/ 280:14:03	001:12:00/ 002:00:00	279:21:03/ 280:09:03	03/ 279 CDT	-19.7		OCTOBER 5, 1988	STS 26	FINAL, REV C	9/16/88



GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
280:14:03/ 281:02:03	002:00:00/ 002:12:00	280:09:03/ 280:21:03	03/ 280 CDT	-18.1		OCTOBER 6, 1988	STS 26	FINAL, REV C	9/16/88

CDT :280
FD : 03
MET :002

0 1 2 3 4 5 6 7 8 9 10 11 12
10 11 12 13 14 15 16 17 18 19 20 21

STS: AUTO MNVR | ZLV MNVR | MEAL | IMU MNVR | IMU ALIGN | ZLV MNVR | SLEEP

P/TV11 ACT | PS/ETT/UTP | P/TV10 ACT | D\O PREP REHEARSAL | PRE SLEEP

DTO 623

PL: SSIP CRYSTALS | SSIP METALS | PCG PHOTO | PVTDS ACT | ADSF B ACT

DAY/NIGHT

ORBIT: 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40

GSTDN COVERAGE

33	34	35	36	37	38	39	40
HAW	YAR	GWM	GWM	IOS	GWM	AGO	AGO
VAN	GWM	HAW	HAW	GWM	HAW	ACN	
GDX	HAW	VAN	VAN	HAW	AGO	GWM	
MIL	VAN	GDX	IOS	AGO	ACN		
BDA	GDX	MIL	GWM	ACN	IOS		
DKR	MIL	ACN	HAW	IOS	GWM		
ACN	BDA		AGO	GWM			

TDRS E W

ATTITUDE: TDRS | -ZLV +XVV | IMU | -ZLV +XVV

-ZLV, +XVV
-ZLV, +XVV
DTO 0623 CABIN AIR MONITORING

NOTES:

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
281:02:03/ 281:14:03	002:12:00/ 003:00:00	280:21:03/ 281:09:03	04/ 280 CDT	-16.4		OCTOBER 6, 1988	STS 26	FINAL, REV C	9/16/88

CDT :280 FD : 03 MET :002 — CDT:281 FD: 04 — MET:003

12 13 14 15 16 17 18 19 20 21 22 23 0 1 2 3 4 5 6 7 8 9

STS: SLEEP; IMU MNVR; IMU ALIGN; ZLV MNVR; FCS C/O; RCS HOT; FIRE; AUTO MNVR; APU COOL; CREW CONF

POST SLEEP; P/TV05 SETUP; P/TV05 ACT

PVTDS CK

PL: ADSF DEACT; P/TV07 SETUP; P/TV07 ACT; PVTDS ACT

DAY/NIGHT

ORBIT: 41 42 43 44 45 46 47 48

GSTDN COVERAGE: ACN, DKR, GWM, AGO, DKR, ACN, DKR, DKR, MAX, YAR, CAN, MIL, BDA, DKR, IOS, YAR, CAN, MIL, BDA, DKR, IOS, YAR, CAN, VAN, MIL, BDA, DKR, IOS, YAR, CAN, HAW, VAN, GDX, MIL, BDA, DKR, ACN, YAR

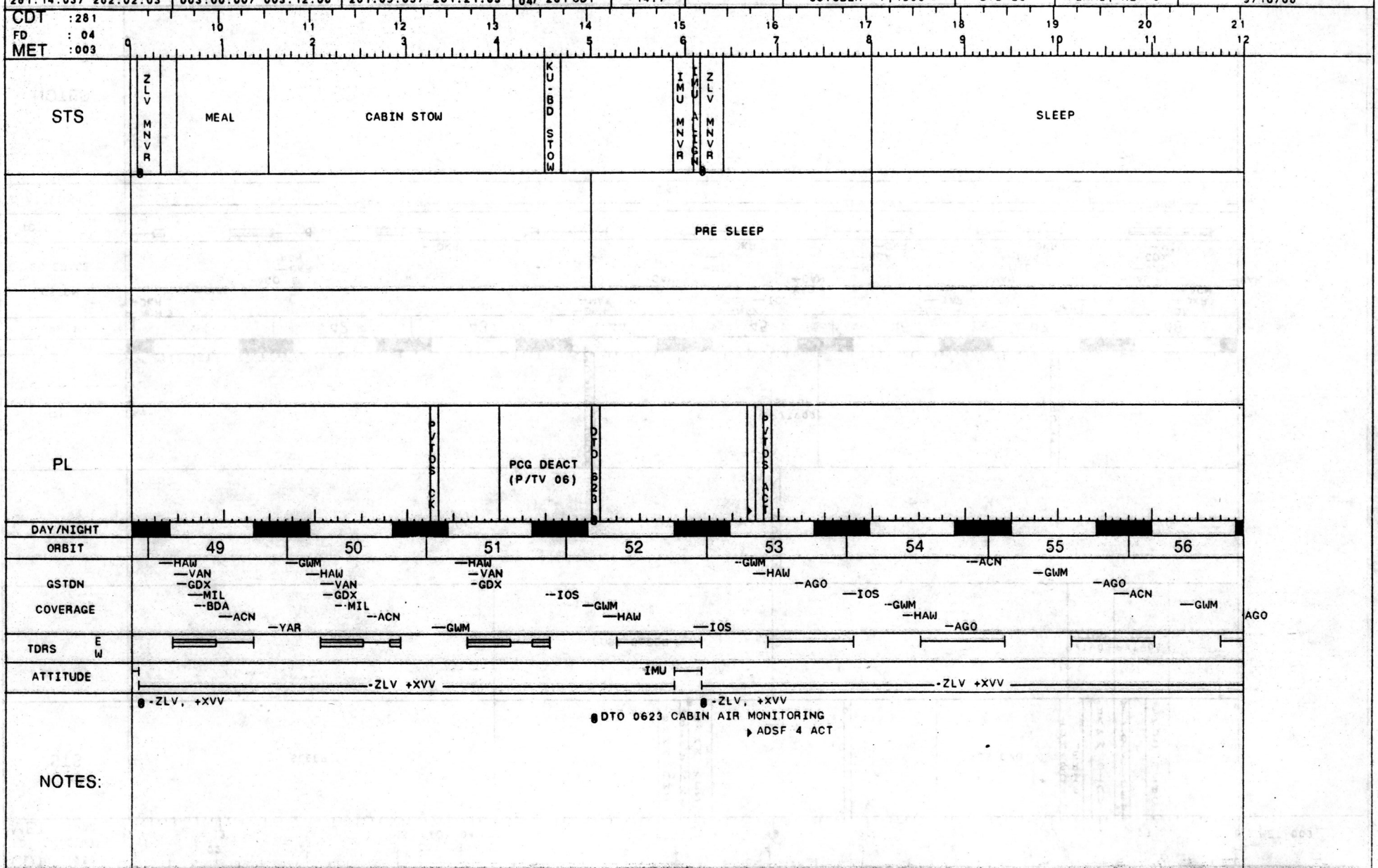
TDRS E W

ATTITUDE: -ZLV +XVV; IMU; -ZLV +XVV; RCS; TDRS

-ZLV, +XVV; APU HTR ACT; PPE

NOTES:

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
281:14:03/ 282:02:03	003:00:00/ 003:12:00	281:09:03/ 281:21:03	04/ 281 CDT	-14.7		OCTOBER 7, 1988	STS 26	FINAL, REV C	9/16/88



GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
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CDT :281
FD : 04
MET :003

CDT:282
FD: 05

MET:004

STS	SLEEP		IMU MNVR	IMU ALIGN	XSI MNVR	IMU MNVR	IMU ALIGN	PLBD OPS	
		POST SLEEP			DEORBIT PREP				
PL			ADSF DEACT	PDVETA OCST	DTO 623				

DEORBIT BURN (3/23:54)

DAY/NIGHT

ORBIT: 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64

GSTDN COVERAGE: AGO, ACN, DKR, GWM, DKR, DKR, MAX, CAN, BDA, DKR, MAX, IOS, YAR, CAN, MIL, BDA, DKR, MAX, IOS, YAR, CAN, MIL, BDA, DKR, IOS, YAR, CAN, GDX, MIL, BDA, DKR, VAN, YAR, HAW, VAN, GDX, MIL, BDA, DKR, ACN

TDRS E W

ATTITUDE: -ZLV +XVV | IMU | BIASED -XSI | IMU | DEORBIT BURN | ENTRY

DTO 0623 CABIN AIR MONITORING

NOTES:

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
282:14:03/ 283:02:03	004:00:00/ 004:12:00	282:09:03/ 282:21:03	05/ 282 CDT	-11.1		OCTOBER 8, 1988	STS 26	FINAL, REV C	9/16/88

CDT :282
FD : 05
MET :004

0 1 2 3 4 5 6 7 8 9 10 11 12 10 11 12 13 14 15 16 17 18 19 20 21

STS

PL

EDW LANDING
(4/00:57)

DAY/NIGHT

ORBIT: 65 66 67 68 69 70 71 72

GSTDN COVERAGE

65: YAR, GWM, HAW, VAN, GDX, MIL, BDA, ACN
66: GWM, HAW, VAN, GDX, MIL, ACN
67: GWM, HAW, VAN
68: IOS, GWM, HAW, AGO
69: IOS, GWM, HAW, AGO, ACN, IOS, GWM
70: HAW, AGO, ACN, GWM, AGO, ACN, DKR
71: GWM
72: GWM

TDRS E W

ATTITUDE: ENTRY

NOTES:

DETAILED TIMELINE

DETAILED TIMELINE

DETAILED TIMELINE

STS-26 (FD 01)

Activities prior to 0/02:30 MET are in the ASCENT & POST INSERTION checklists. Orbiter attitude when entering the CAP is BIASED -ZLV, +YVV.

IMU ALIGN LOG

STAR ID: -Y: 98 , ZUBENELGENUBI
: 28 , AL NA'IR
ANG DIF: 90.9

STARS IN TABLE: 0 2 : 4 3

REQD ID: -Y ____ , ____ ANG ERR ___ . ___ ___
1 2 3

ANG: ΔX ( ) ___ . ___ ___ ( ) ___ . ___ ___ ( ) ___ . ___ ___
ΔY ( ) ___ . ___ ___ ( ) ___ . ___ ___ ( ) ___ . ___ ___
ΔZ ( ) ___ . ___ ___ ( ) ___ . ___ ___ ( ) ___ . ___ ___

EXECUTION TIME: ___ ___ / ___ ___ : ___ ___ : ___ ___

FD01 EZ CAP ACTIVITIES:

Do at earliest convenience:
CRYO 02 TK HTR SNSR CK (ORB OPS, ECLS)
PCS 1(2) CONFIG (ORB OPS, ECLS)
Config Sys 1 (5 Min/2 Cmn)
LES CLEANING & DRYNG (25 Min/1 Cmn)
LAMP & FIRE SUPPR TEST
(ORB OPS, EPS)(10 Min)
FOOD PREP/POST (Cue Card)(30 Min)
PPE INITIALIZATION
MF28H Unstow PPE module & voice cassette. Note appearance & MET. Mix vigorously 20 times & restow. Notify MCC of MET

MET DAY 000

02:00 — A1(B1) AUTO/VERN
02:10
02:20
02:30
02:40
02:50
03:00

ORB 3

IMU ALIGN-S TRK (ORB OPS)
Perform Steps 2 through 5

UNSTOW CABIN EQUIP (All)

P/TV02 ACT (SAT DEPLOY)
(PHOTO/TV, P/TV SCENES)

IUS PRE-DEPLOY C/O (HTS)
(IUS DPY, EARLY CHECKS)

TV (HAW)
(CREW CNTL-PLB)

INFORM CREW (HTS)
GO FOR PWR XFER
GO FOR PDCO
IUS ANT
HTS 2:53-2:58
VTS 3:03-3:06

TDREW — RTS — GSTDN — ACN — YAR — GTS — GWM — HTS — HAW — ATT — BIASED -ZLV +YVV — STS — PL — MCC — TRACKING ARC

STS-26 (FD 01)

TDRE W	RTS	GSTDN	MET DAY 000	ATT	STS	PL	MCC
	HTS, VTS	HAW, VAN, GDX, MILI, BDA	03:00	A1(B1) AUTO/VERN		P/TV CAMERA ASSEMBLY (PHOTO/TV, P/TV DATA)	IUS DIRECT CHECK (VTS) (IUS DPY, EARLY CHECKS)
			03:10		UNSTOW CABIN EQUIP (All)		TDRS PI CHECKS (TDRE) (IUS DPY, EARLY CHECKS)
			03:20				TRACKING ARC
			03:30	BIASED -ZLV +YVV	AMU DATA TAKE ✓RATES ≤ 0.1 DAP: PLS/PLS/PLS A/MAN/VERN for 10 sec A/AUTO/VERN Record MET ___ / ___ : ___ ___	R2 APU STEAM VENT HTR DEACT BLR PWR (three) - OFF	
	ACN				AFT CONTROLLER C/O (ORB OPS, GNC)		
			03:40			P/TV02 SETUP (SAT DEPLOY) (PHOTO/TV, P/TV SCENES)	(3:40)
			03:50		AMU DATA TAKE (SEE ABOVE) Record MET ___ / ___ : ___ ___	R2 APU COOL OFF (On MCC Cue) APU FUEL PUMP/VLV COOL B-OFF	INFORM CREW GO FOR APU COOL OFF
			04:00				

CAP/26/FIN C 9/16/88

STS-26 (FD 01)

TDRS EW	RTS	GSTDN	MET DAY 000	ATT	STS	PL	MCC
			04:00	BIASED -ZLV		P/TV02 SETUP (SAT DEPLOY) (PHOTO/TV, P/TV SCENES)	
			A1(B1) AUTO/VERN				
			04:10	+YVV			UPLINK (GWM) ORB & TGT SV
			ORB 4			P/TV02 ACT (SAT DEPLOY) (PHOTO/TV, P/TV SCENES)	INFORM CREW (GWM) GO FOR SV XFER
GTS	GWM					TRANSFER SV (GWM) (IUS DPY, LATE CHECKS)	
			04:20		MNVR TO TDRS CHECK ATT (IUS DPY, LATE CHECKS)		
			(A11)B1 AUTO/VERN				
			04:30			TILT TABLE ELEVATION TO 29 (IUS DPY, LATE CHECKS)	TV (HAW) (CREW CNTL-PLB) (GND CNTL-CAB) UPDATE (HAW) DPY/BURN PADS
HTS	HAW		A11(B1) AUTO/VERN				
				TDRS CK		TDRS DIRECT CHECK (IUS DPY, LATE CHECKS) STEP 1	
			04:40		MEAL (A11)	TDRS DIRECT CHECK (GDX) (IUS DPY, LATE CHECKS) STEP 2	TDRS ANT (GDX) AOS 4:40 LOS 4:45
VTS	VAN	GDX					
		MIL	04:50			IUS/PI LOCK (IUS DPY, LATE CHECKS)	
			05:00				

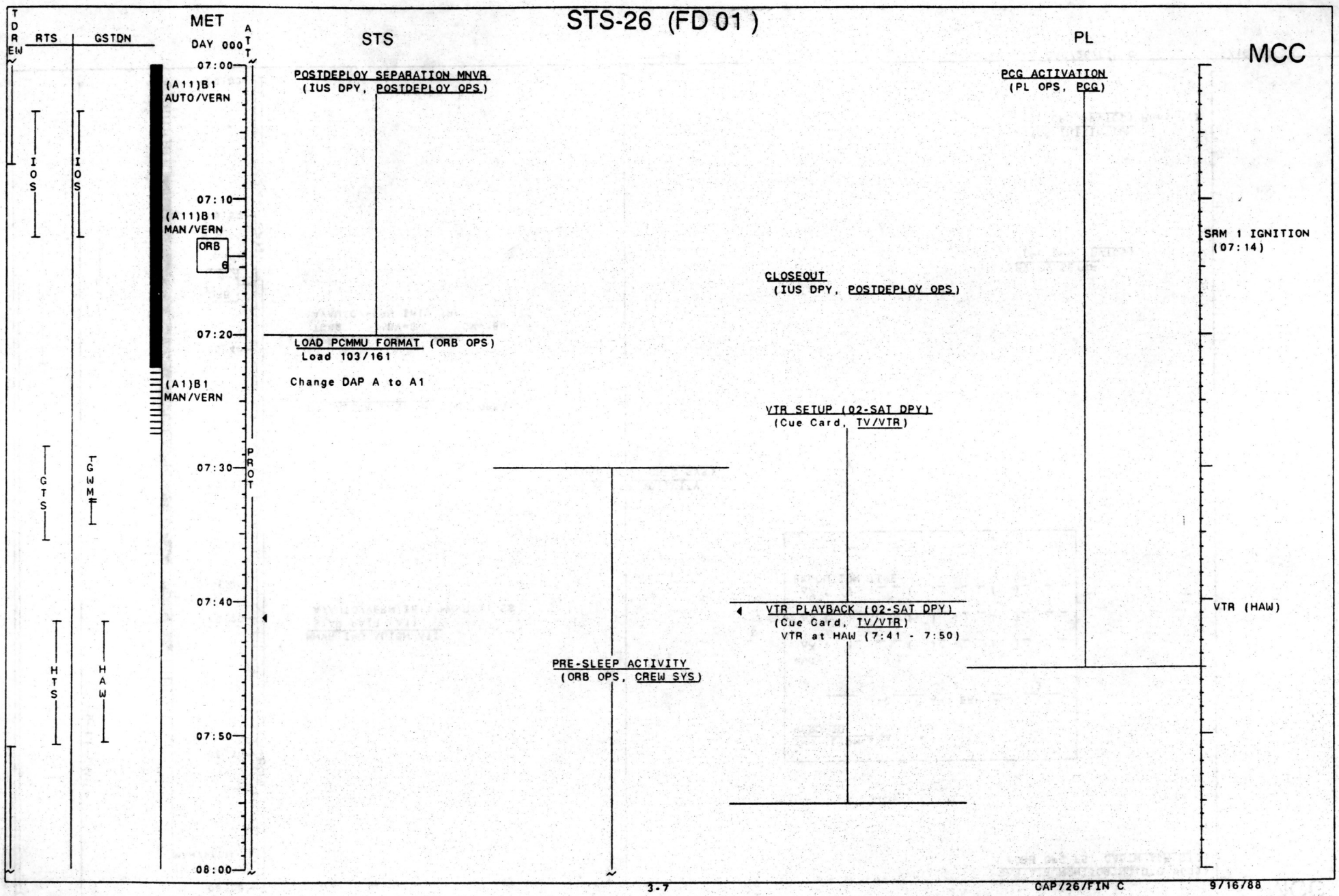
STS-26 (FD 01)

TDRE	RTS	GSTDN	MET DAY 000	ATT	STS	PL	MCC
			05:00				
			A11(B1) AUTO/VERN				
			05:10		MEAL (A11)		
	TACNI			TDRS CK			
			05:20				
					A12 APU HTR GAS GEN/FUEL PUMP (three) - A AUTO		
			05:30				
					MNVR TO DEPLOY ATTITUDE (IUS DPY, DEPLOY OPS)	P/TV02 ACT (SAT DEPLOY) (PHOTO/TV, P/TV SCENES)	
			05:40				
			ORB 5	DPLY		DEPLOY COUNTDOWN (IUS DPY, DEPLOY OPS)	
			05:50				
GTS	GWM					XFER TO INT PWR	INFORM CREW(GWM) GO FOR DEPLOY
						REL UMBILICALS TILT TABLE TO 50	
			06:00				

STS-26 (FD 01)

TDRS	RTS	GSTDN	MET DAY 000	ATT	STS	PL	MCC
			06:00			P/TV02 ACT (SAT DEPLOY) (PHOTO/TV, P/TV SCENES)	DEPLOY COUNTDOWN (IUS DPY, DEPLOY OPS)
			A11(B1) AUTO/VERN	DPLY			
HTS	HAW		06:10				
			A11(B1) MAN/NORM				
							DEPLOY IUS/TDRS (IUS DPY, DEPLOY OPS)
							IUS DEPLOY (06:14)
					POSTDEPLOY SEPARATION MNVR (IUS DPY, POSTDEPLOY OPS)		
TVTS	TVANT						LOWER TILT TABLE TO -6 (IUS DPY, POSTDEPLOY OPS)
			(A11)B1 AUTO/NORM				
			06:20	SEP			
					OMS BURN		
			06:30		MNVR TO IUS VIEWING ATT		OMS SEP BURN (06:29)
			(A11)B1 AUTO/VERN				
			06:40	VIEW			
					PI OFF		PCG ACTIVATION (PL OPS, PCG)
			06:50				
					MNVR TO PROTECT ATT		
			07:00	PROT			

STS-26 (FD 01)


TDRS EW
RTS
GSTDN
MET
DAY 000
ATT
STS
PL
MCC
07:00
07:10
07:20
07:30
07:40
07:50
08:00
IOS
IOS
GTS
TGWM
HTS
HAW
(A11)B1
AUTO/VERN
(A11)B1
MAN/VERN
ORB
6
(A1)B1
MAN/VERN
PROT
POSTDEPLOY SEPARATION MNVR
(IUS DPY, POSTDEPLOY OPS)
LOAD PCMMU FORMAT (ORB OPS)
Load 103/161
Change DAP A to A1
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
CLOSEOUT
(IUS DPY, POSTDEPLOY OPS)
VTR SETUP (02-SAT DPY)
(Cue Card, TV/VTR)
VTR PLAYBACK (02-SAT DPY)
(Cue Card, TV/VTR)
VTR at HAW (7:41 - 7:50)
PCG ACTIVATION
(PL OPS, PCG)
SRM 1 IGNITION
(07:14)
VTR (HAW)

STS-26 (FD 01)

TDRS EW	RTS	GSTDN	MET DAY 000	ATT	STS	PL	MCC
			08:00			CAB AIR MONITORING(DTO 0623) (ORB OPS FS, CABIN AIR DTO)	
			(A1)B1 MAN/VERN				
		AGO	08:10	PROT			
			08:20		MNVR IMU ALIGN ATT STAR PAIR (A1) A/AUTO/VERN Init MNVR at SS		
			A1(B1) AUTO/VERN				
			08:30	IMU	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
					IMU ALIGN - S TRK (ORB OPS)		
IOS		IOS	08:40		MNVR (TRK) -ZLV, +XVV TG=2 BV=3 OM=180 A/AUTO/VERN, Init TRK		
			ORB			PVTOS SETUP (PL OPS, PVTOS)	
			08:50	-ZLV +XVV			
						PVTOS INITIATION (PL OPS, PVTOS) Runs 1,5	
			09:00				

IMU ALIGN LOG
REQD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

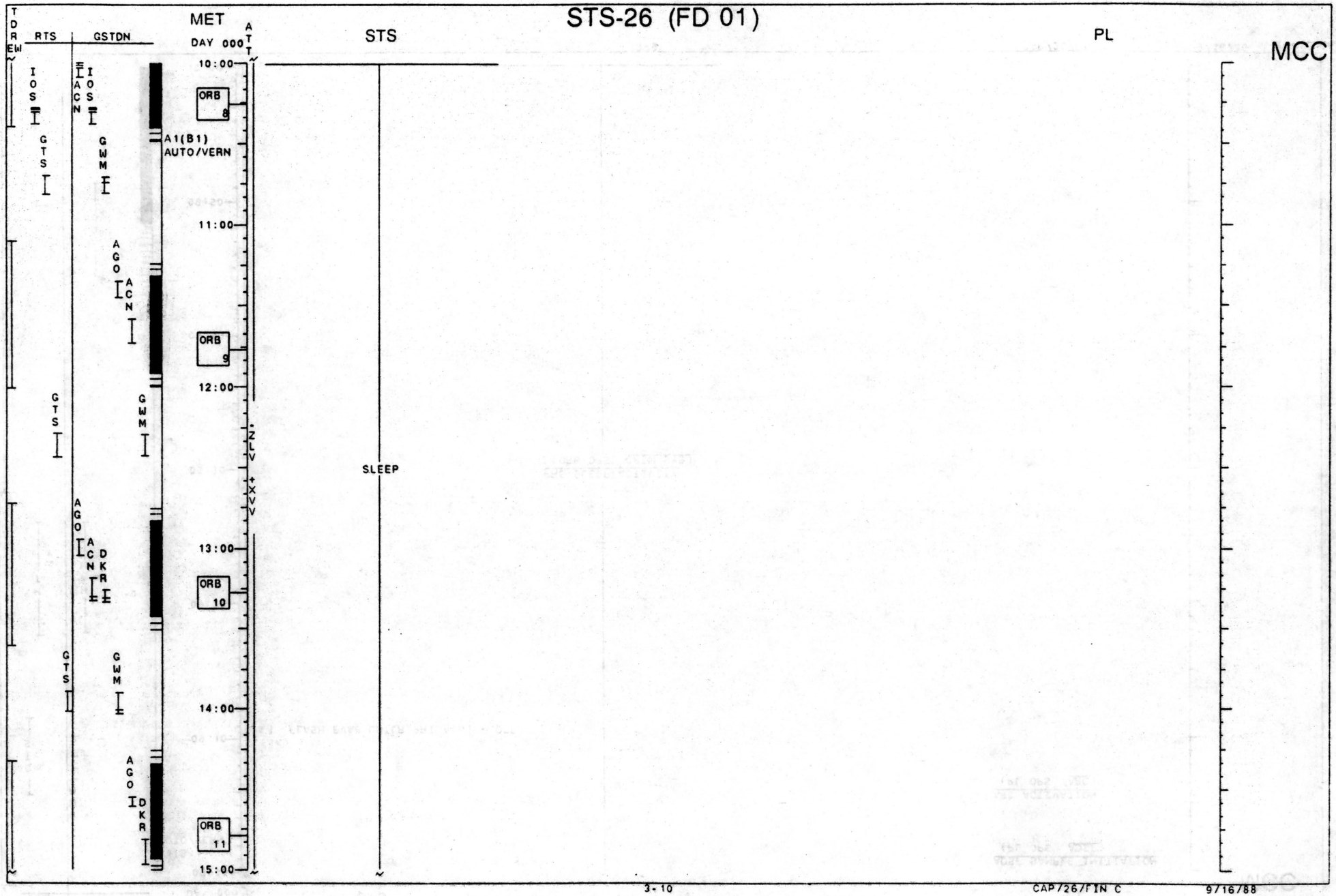
ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

STS-26 (FD 01)

T D R EW	RTS	GSTDN	MET DAY 000	ATT	STS	PL	MCC
			09:00			ADSF SAMPLE INITIATION (PL OPS, ADSF)	
			A1(B1) AUTO/VERN				
	GTS	GWM				ARC ACTIVATION (PL OPS, ARC)	
			09:10		L1 FLASH EVAP CNTLR PRI A(B) - OFF		
	HTS	HAW	09:20				
				-ZLV			
			09:30	+XVV	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
			09:40				
		AGO	09:50				
			10:00				

STS-26 (FD 01)


TDRS EW
RTS
GSTDN
MET
DAY 000
ATT
STS
PL
MCC
IOS
GTS
ACN
IOS
GWM
AGO
ACN
GTS
GWM
AGO
ACN
DKR
GTS
GWM
AGO
DKR
10:00
11:00
12:00
13:00
14:00
15:00
ORB 8
ORB 9
ORB 10
ORB 11
A1(B1)
AUTO/VERN
-ZLV
+XVV
SLEEP

STS-26 (FD 02)

TDRS EW | RTS | GSTDN | MET DAY 000 | ATT | STS | PL | MCC

15:00 — A1(B1) AUTO/VERN

16:00 — ORB 12

17:00 — ORB 13

18:00 — ORB 14

19:00

20:00

DKR MAX

DKR MAX

YAR CAN

MIL BDA DKR MAX

IOS

SLEEP

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

ADSF DEACTIVATION
(PL OPS, ADSF)

UPLINK
REFSMMAT
NORMALIZAT'N

FD02 EZ CAP ACTIVITIES:

- EXERCISE (1 Hr/All)
- FOOD PREP/POST (Cue Card)(30 Min)
- P/TV08 SETUP (MLE)
  (PHOTO/TV, P/TV SCENES)(30 Min)
- P/TV08 ACT (MLE)
  (PHOTO/TV, P/TV SCENES)(2 Cmn)
  Target of opportunity observations
- CHANGES IN TOTAL BODY WATER (DSO 460)
  (MED FS, MED DSO's) (15 Min/PLT,MS2)
  Samples at 0, 3, 5 hrs post-dosing
  Prefer start at wake-up
- SALIVARY SCOP/DEX KINETICS (DSO 457)
  (MED FS, MED DSO's) (5 Min/MS2,MS3)
  Samples at 0, .5, 1, 2, 4, 6, 8, 10, 12, 24, 36 hrs post-dosing
  Prefer start at wake-up
- SALIVARY TYLENOL KINETICS (DSO 458)
  (MED FS, MED DSO's) (5 Min/CDR)
  Samples at 0, .25, .5, 1, 2, 3, 4, 5, 6, 8 hrs post-dosing
  Prefer start at wake-up
- OTOLITH TILT-TRANSLATION (DSO 459)
  REINTERPRETATION
  (MED FS, MED DSO's) (20 Min/CDR,MS2)
  (45 Min/MS3)

CAP/26/FIN C 9/16/88

STS-26 (FD 02)

MET DAY 000

STS | PL | MCC

TDREW | GSTDN | ATT

IOS YAR CAN | MIL BDA DKR | VAN MIL BDA | DKR IOS YAR CAN | HAW VAN | GDX MIL BDA DKR ACN

20:00 — A1(B1) AUTO/VERN; (A1)B5 MAN/VERN; A1(B5) AUTO/VERN; ORB 15

21:00 — A1(B1) AUTO/VERN

22:00 — ORB 16

23:00 — ORB 17

001 00:00

01:00

IMU | -ZLV | +XVV | TDRS

019 ✓COAS PWR-OFF Mount COAS-AFT

MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
COAS CALIBRATION (ORB OPS)
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK

Change DAP B to B1
019 ✓COAS PWR - OFF Stow COAS
KU-BD ANT DEPLOY
(ORB OPS, COMM/INST)
KU-BD ACTIVATION (COMM mode)
(ORB OPS, COMM/INST)

MNVR KU BAND ATT
R=62 P=207 Y=24
A/AUTO/VERN Init MNVR (23:45)

MNVR (TRK) -ZLV, +XVV

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

P/TV13 SETUP (CREW ACT)
(PHOTO/TV, P/TV SCENES)

P/TV13 ACT (CREW ACT)
(PHOTO/TV, P/TV SCENES)

P/TV07 SETUP (PPE)
(PHOTO/TV, P/TV SCENES)

P/TV07 ACT (PPE)
(PHOTO/TV, P/TV SCENES)

PVTOS STATUS CHECK
(PL OPS, PVTOS)

IEF ACTIVATION
(PL OPS, IEF)

ARC DEACTIVATION
(PL OPS, ARC)

VTR SETUP (02-SAT DPY)
(Cue Card, TV/VTR)

VTR PLAYBACK (02-SAT DPY)
(Cue Card, TV/VTR)
VTR at TDRE (1/00:01)
Continuation of FD1
VTR playback

VTR (TDRE)

TV (TDRE)
(CREW CNTL-CAB)

IMU ALIGN LOG
REQD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

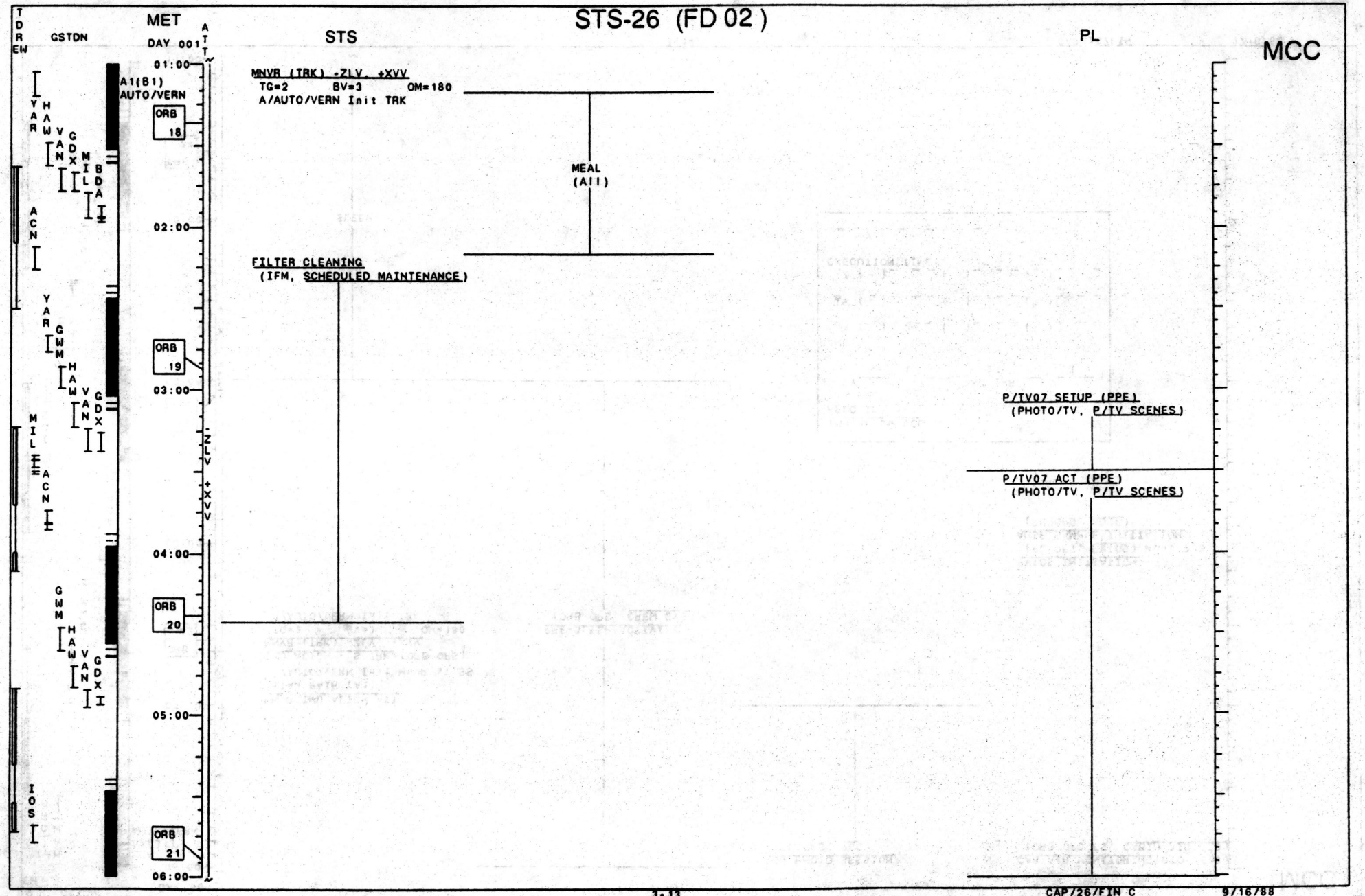
COAS CALIBRATION LOG

STAR ID: -Z 16 , ACHERNAR
STAR AVAIL: 2 0 : 1 5 TO 2 0 : 5 9

-Z Δ BIAS ____ , ____ ____

UPDATE TIME: ___ / ___ : ___ : ___

STS-26 (FD 02)



CAP/26/FIN C 9/16/88

STS-26 (FD 02)

TDRS EW	GSTDN	MET DAY 001	ATT	STS	PL	MCC
GWM, HAW	A1(B1) AUTO/VERN	06:00	-ZLV, +XVV		PCG PHOTO SESSION (PL OPS, PCG)	CAB AIR MONITORING (DTO 0623) (ORB OPS FS, CABIN AIR DTO)
IOS, GWM, HAW, AGO		07:00	IMU	MNVR IMU ALIGN ATT STAR PAIR (A1) A/AUTO/VERN Init MNVR at SS IMU ALIGN - S TRK (ORB OPS) MNVR (TRK) -ZLV, +XVV TG=2 BV=3 OM=180 A/AUTO/VERN Init TRK	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
		ORB 22				PVTOS INITIATION (PL OPS, PVTOS) Runs 2,6 ADSF SAMPLE INITIATION (PL OPS, ADSF)
		08:00				
IOS, GWM, HAW, AGO		ORB 23				
		09:00	-ZLV, +XVV			
		10:00		SLEEP		
	ACN	ORB 24				
GWM		11:00				

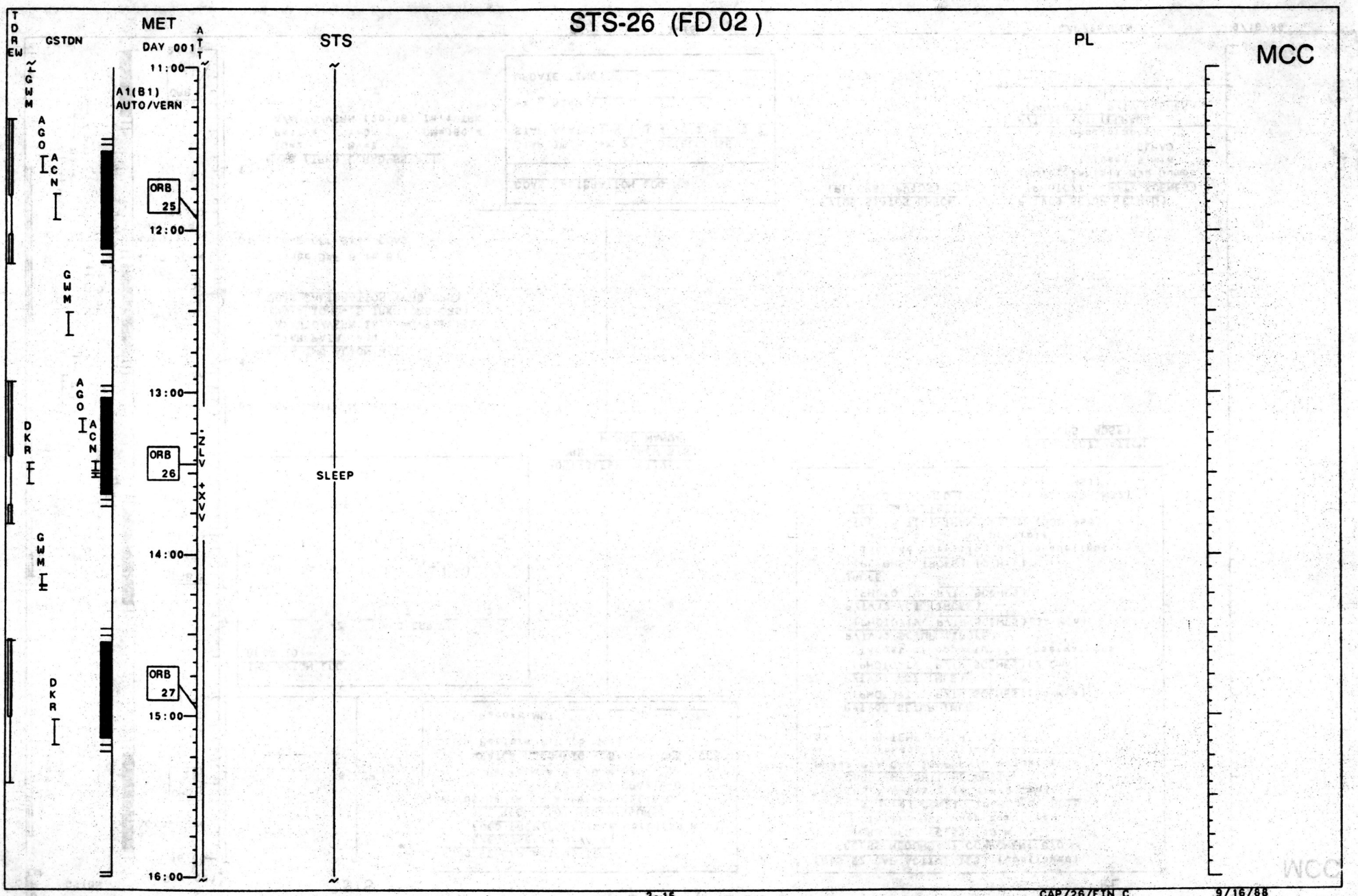
IMU ALIGN LOG
REQD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

STS-26 (FD 02)


TDRS EW
GSTDN
MET
DAY 001
ATT
STS
PL
MCC
11:00
12:00
13:00
14:00
15:00
16:00
A1(B1)
AUTO/VERN
GWM
AGO
ACN
ORB 25
ORB 26
ORB 27
DKR
-ZLV
+XVV
SLEEP

STS-26 (FD 03)

TDRS EW | GSTDN | MET DAY 001 | ATT | STS | PL | MCC

16:00

A1(B1) AUTO/VERN

ORB 28

SLEEP

FD03 EZ CAP ACTIVITIES:
- EXERCISE (1 Hr/All)
- FOOD PREP/POST (Cue Card)(30 Min)
- RCS REGULATOR RECONFIGURE
  - 07/08 He PRESS A(three)-CL(tb-CL)
  - B(three)-GPC(tb-OP)
  - Perform A.M.(10 Min)
- HEATER RECONFIG - B (ORB OPS, EPS)
  - Perform A.M.(5 Min)

Record MET ___ / ___ : ___ ___

FD03 EZ CAP ACTIVITIES: (continued)
- ECLSS REDUNDANT COMPONENT C/O
  - (ORB OPS, ECLS) (10 Min)
  - Inform MCC when complete
- PCS 1 (2) CONFIG (ORB OPS, ECLS)
  - Config Sys 2 (5 Min/2 Cmn)
- CAB TEMP CNTL RECONFIG
  - MD44Γ Pin CAB TEMP CNTL actuator linkage to actuator 2
  - L1 CAB TEMP CNTLR - 2
  - (5 Min)
- P/TV08 SETUP (MLE)
  - (PHOTO/TV, P/TV SCENES)(30 Min)
- P/TV08 ACT (MLE)
  - (PHOTO/TV, P/TV SCENES)(2 Cmn)
  - Target of opportunity observations
- P/TV12 SETUP (IRCFE)
  - (PHOTO/TV, P/TV SCENES)(30 Min)
- P/TV12 ACT (IRCFE)
  - (PHOTO/TV, P/TV SCENES)
- IRCFE
  - (PL OPS, IRCFE) (2 Hrs)
  - Include operation during sunlight and over SAA if possible
- OTOLITH TILT-TRANSLATION (DSO 459)
- REINTERPRETATION
  - (MED FS, MED DSO's) (20 Min/CDR,MS2)
  - (45 Min/MS3)

17:00

IMU ALIGN LOG

REOD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

ANG:

ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _

ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _

ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _

EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

ORB 29

18:00

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
Do FC PURGE MANUAL

ADSF DEACTIVATION
(PL OPS, ADSF)

01 ✓COAS-OFF Mount COAS - FWD

19:00

MNVR IMU ALIGN ATT
- STAR PAIR (A1)
- A/AUTO/VERN Init MNVR at SS
- IMU ALIGN - S TRK (ORB OPS)
- COAS CALIBRATION (ORB OPS)

(A1)B5 MAN/VERN

ORB 30

A1(B5) AUTO/VERN

Change DAP B to B1

A1(B1) AUTO/VERN

01 ✓COAS-OFF Stow COAS

20:00

MNVR (TRK) ELRAD SS ATT
- TG=2 BV=5
- P=17.4 Y=0 OM=160.4
- A/AUTO/VERN (20:16) Init TRK

COAS CALIBRATION LOG

STAR ID: +X 23 , BETELGEUSE
STAR AVAIL: 1 9 : 1 4 TO 2 0 : 0 2

+X Δ BIAS ____ . ____ ____

UPDATE TIME: ___ /___ : ___ : ___

PVIOS STATUS CHECK
(PL OPS, PVIOS)

P/TV09 SETUP (ELRAD)
(PHOTO/TV, P/TV SCENES)
Note: Inhibit H20 Dumps at least 5 min prior to ELRAD photography.

P/TV09 ACT (ELRAD)
(PHOTO/TV, P/TV SCENES)

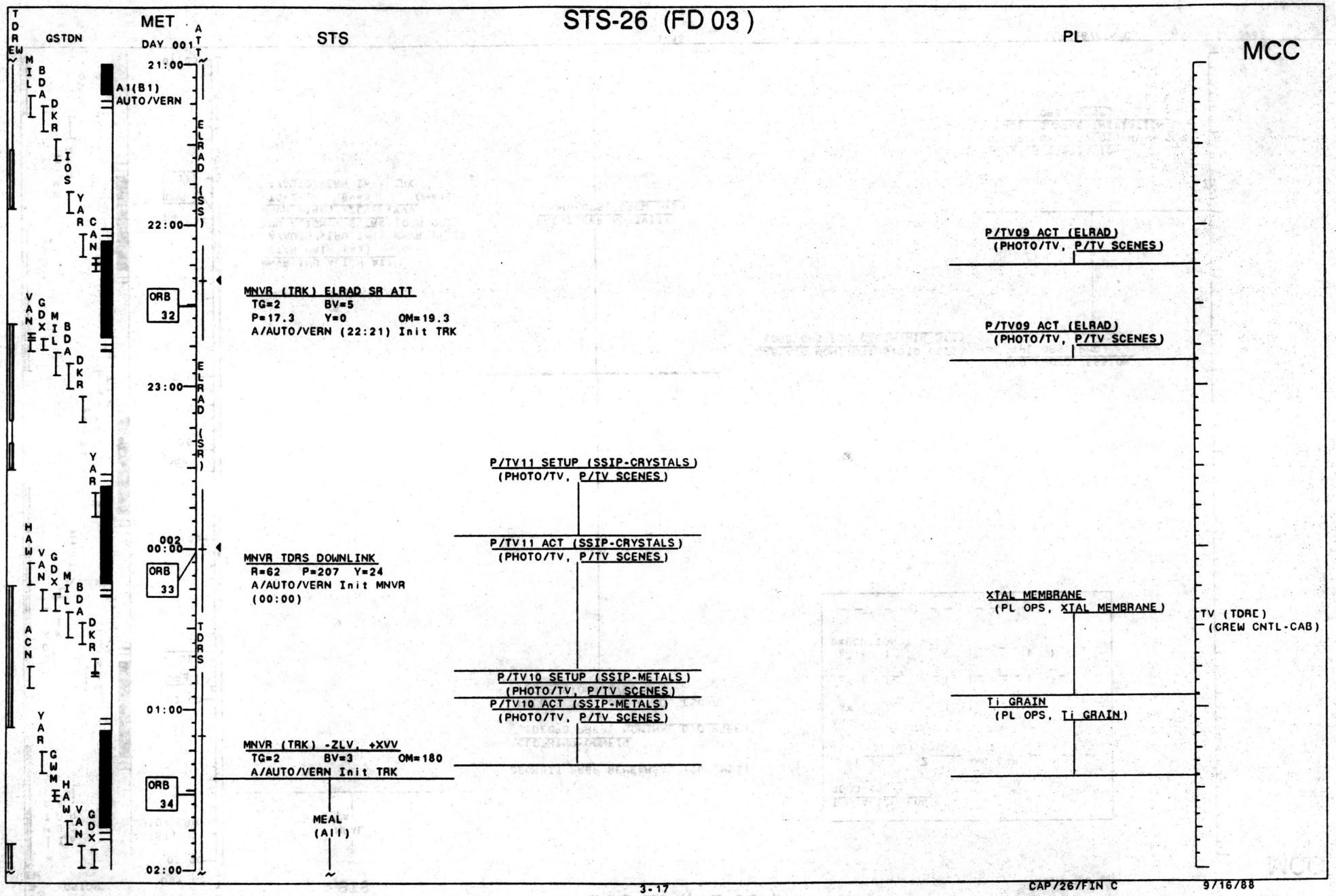
ORB 31

21:00

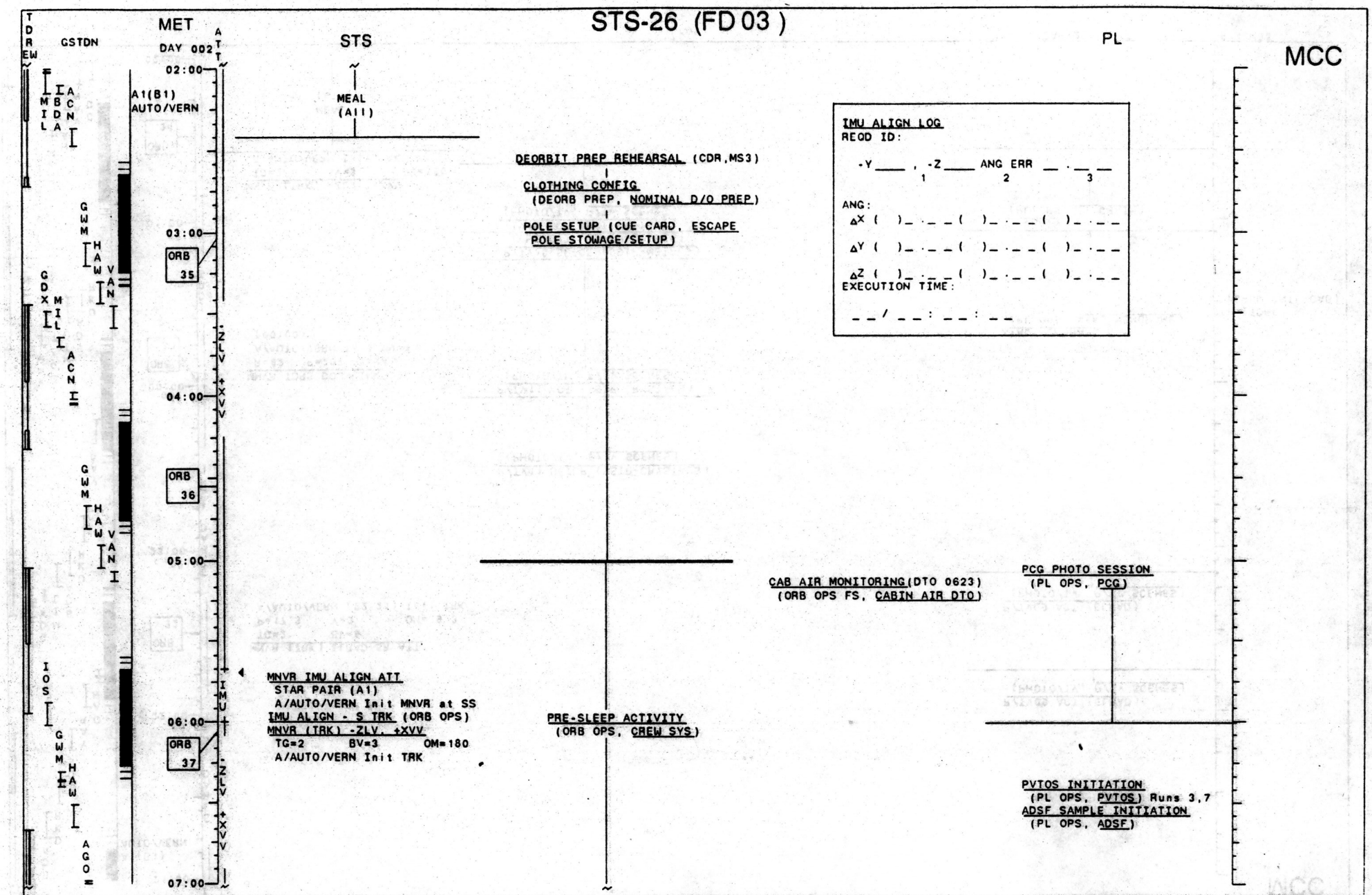
DKR MAX CAN BDA DKR MAX IOS YAR CAN MIL BDA DKR MAX IOS YAR CAN

-ZLV +XVV IMU/COAS

STS-26 (FD 03)

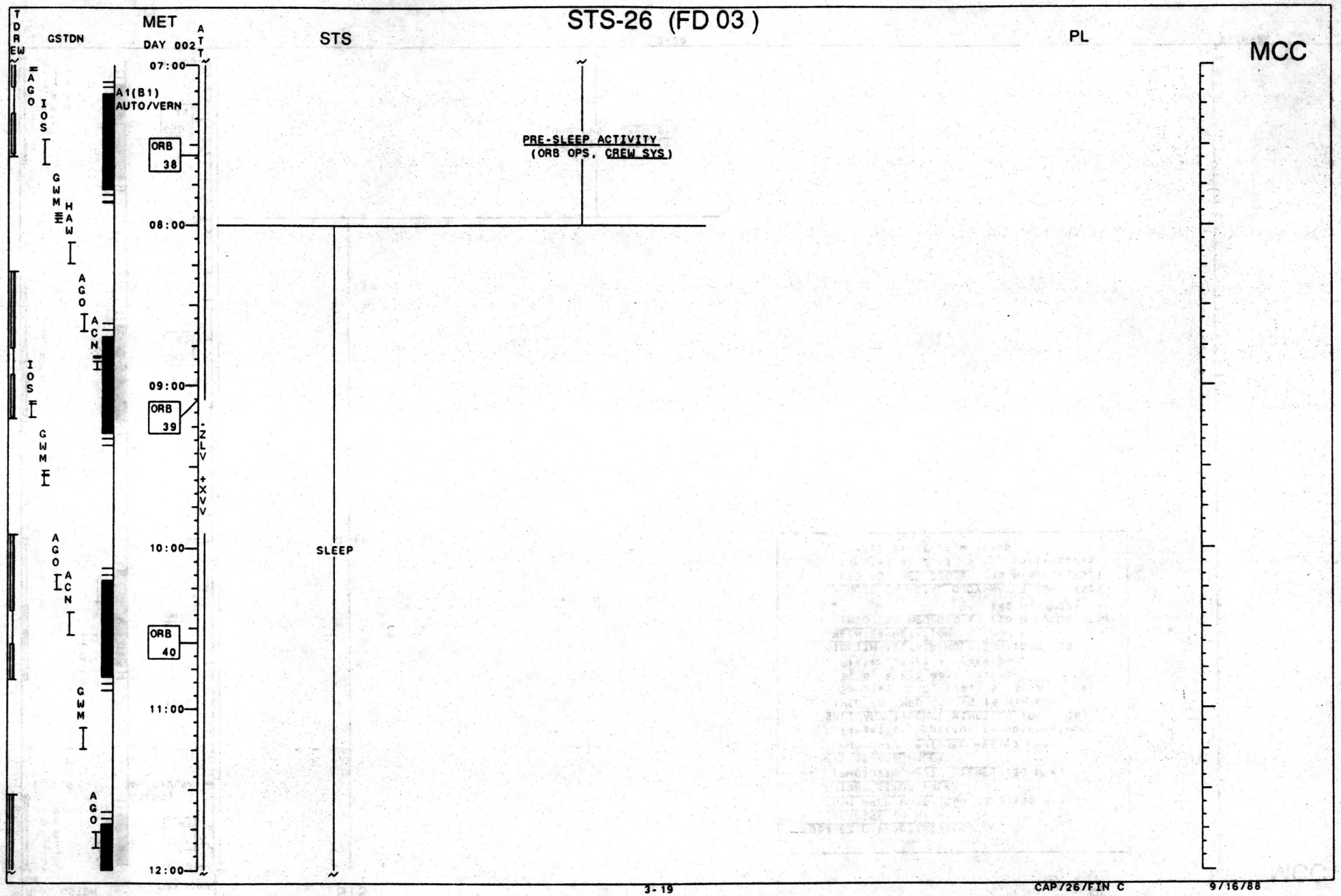

TDRS EW
GSTDN
MET
DAY 001
ATT
STS
PL
MCC
21:00
22:00
23:00
002
00:00
01:00
02:00
MIL
BDA
DKR
IOS
YAR
CAN
VAN
GDX
HAW
ACN
GWM
A1(B1)
AUTO/VERN
ELRAD (SSS)
ELRAD (SSR)
TDRS
ORB 32
ORB 33
ORB 34
MNVR (TRK) ELRAD SR ATT
TG=2 BV=5
P=17.3 Y=0 OM=19.3
A/AUTO/VERN (22:21) Init TRK
MNVR TDRS DOWNLINK
R=62 P=207 Y=24
A/AUTO/VERN Init MNVR
(00:00)
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK
MEAL
(All)
P/TV11 SETUP (SSIP-CRYSTALS)
(PHOTO/TV, P/TV SCENES)
P/TV11 ACT (SSIP-CRYSTALS)
(PHOTO/TV, P/TV SCENES)
P/TV10 SETUP (SSIP-METALS)
(PHOTO/TV, P/TV SCENES)
P/TV10 ACT (SSIP-METALS)
(PHOTO/TV, P/TV SCENES)
P/TV09 ACT (ELRAD)
(PHOTO/TV, P/TV SCENES)
P/TV09 ACT (ELRAD)
(PHOTO/TV, P/TV SCENES)
XTAL MEMBRANE
(PL OPS, XTAL MEMBRANE)
Ti GRAIN
(PL OPS, Ti GRAIN)
TV (TDRE)
(CREW CNTL-CAB)

STS-26 (FD 03)

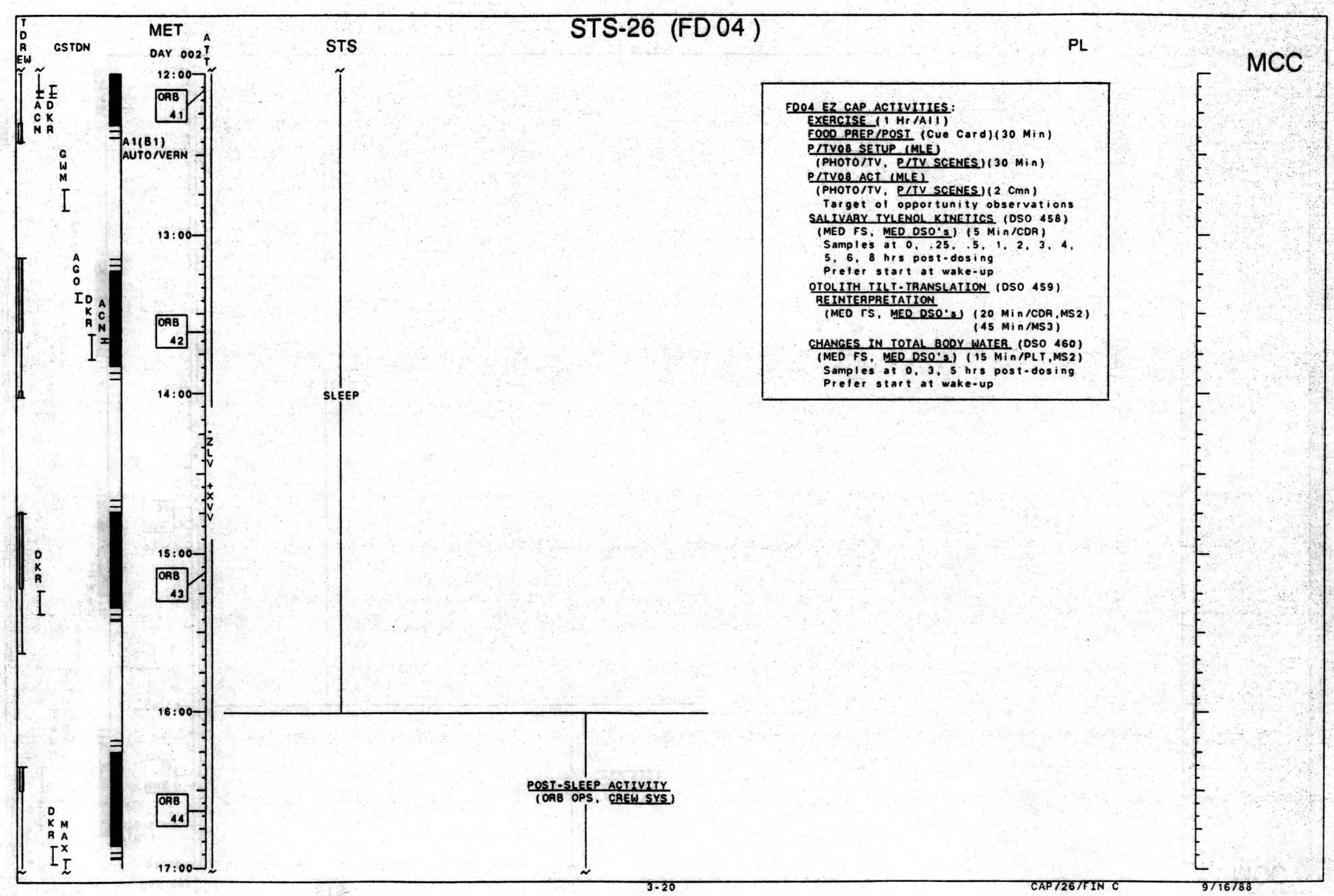


TDREW
GSTDN
MET
DAY 002
ATT
STS
PL
MCC
02:00
03:00
04:00
05:00
06:00
07:00
MIL
BDA
ACN
A1(B1)
AUTO/VERN
GWM
HAW
VAN
GDX
IOS
AGO
ORB 35
ORB 36
ORB 37
-ZLV
+XVV
IMU
MEAL
(All)
DEORBIT PREP REHEARSAL (CDR,MS3)
CLOTHING CONFIG
(DEORB PREP, NOMINAL D/O PREP)
POLE SETUP (CUE CARD, ESCAPE
POLE STOWAGE/SETUP)
IMU ALIGN LOG
REQD ID:
-Y ____ , -Z ____ ANG ERR __ . __ __
1 2 3
ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:
_ _ / _ _ : _ _ : _ _
CAB AIR MONITORING (DTO 0623)
(ORB OPS FS, CABIN AIR DTO)
PCG PHOTO SESSION
(PL OPS, PCG)
MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
PVTOS INITIATION
(PL OPS, PVTOS) Runs 3,7
ADSF SAMPLE INITIATION
(PL OPS, ADSF)

STS-26 (FD 03)


TDRS
EW
GSTDN
MET
DAY 002
ATT
STS
PL
MCC
07:00
08:00
09:00
10:00
11:00
12:00
AGO
IOS
GWM
HAW
ACN
A1(B1)
AUTO/VERN
ORB 38
ORB 39
ORB 40
-ZLV
+XVV
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
SLEEP

STS-26 (FD 04)



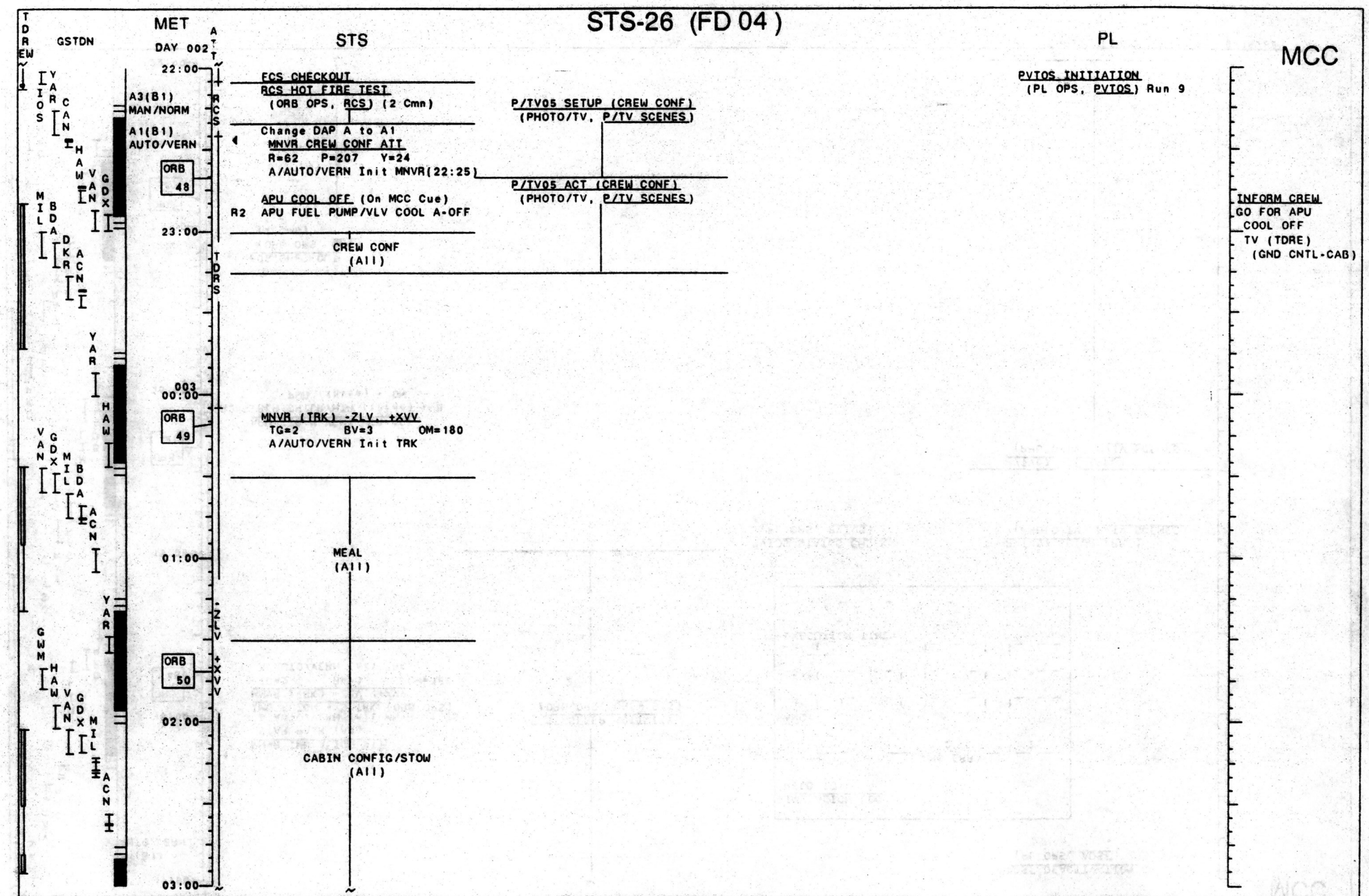
FD04 EZ CAP ACTIVITIES:
- EXERCISE (1 Hr/All)
- FOOD PREP/POST (Cue Card)(30 Min)
- P/TV08 SETUP (MLE)
  (PHOTO/TV, P/TV SCENES)(30 Min)
- P/TV08 ACT (MLE)
  (PHOTO/TV, P/TV SCENES)(2 Cmn)
  Target of opportunity observations
- SALIVARY TYLENOL KINETICS (DSO 458)
  (MED FS, MED DSO's) (5 Min/CDR)
  Samples at 0, .25, .5, 1, 2, 3, 4, 5, 6, 8 hrs post-dosing
  Prefer start at wake-up
- OTOLITH TILT-TRANSLATION (DSO 459)
  REINTERPRETATION
  (MED FS, MED DSO's) (20 Min/CDR,MS2)
  (45 Min/MS3)
- CHANGES IN TOTAL BODY WATER (DSO 460)
  (MED FS, MED DSO's) (15 Min/PLT,MS2)
  Samples at 0, 3, 5 hrs post-dosing
  Prefer start at wake-up

STS-26 (FD 04)

TDRS EW	GSTDN	MET DAY 002	ATT	STS	PL	MCC
MAX YAR CAN	A1(B1) AUTO/VERN	17:00			ADSF DEACTIVATION (PL OPS, ADSF)	
		18:00	IMU	MNVR IMU ALIGN ATT STAR PAIR (A1) A/AUTO/VERN Init MNVR at SS IMU ALIGN - S TRK (ORB OPS) MNVR (TRK) -ZLV, +XVV TG=2 BV=3 OM=180 A/AUTO/VERN Init TRK	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	IMU ALIGN LOG REOD ID: -Y____ , -Z____ ANG ERR __ . __ __ 1 2 3 ANG: ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _ ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _ ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _ EXECUTION TIME: _ _ / _ _ : _ _ : _ _
MIL BDA DKR MAX IOS YAR CAN	ORB 45				PVTOS STATUS CHECK (PL OPS, PVTOS)	P/TV07 SETUP (PPE) (PHOTO/TV, P/TV SCENES)
		19:00				
MIL BDA DKR IOS YAR CAN	ORB 46	20:00	-ZLV R2 +XVV	APU STEAM VENT HTR ACT BLR CNTLR/HTR (three) - B PWR (three) - ON		P/TV07 ACT (PPE) (PHOTO/TV, P/TV SCENES)
		21:00		FCS CHECKOUT (ORB OPS, GNC) (2 Cmn)		
VAN MIL BDA DKR	ORB 47	22:00				

CAP/26/FIN C 9/16/88

STS-26 (FD 04)



TDREW
GSTDN
MET
DAY 002
ATT
STS
PL
MCC
22:00
23:00
003
00:00
01:00
02:00
03:00
A3(B1)
MAN/NORM
A1(B1)
AUTO/VERN
ORB 48
ORB 49
ORB 50
RCS
TDRS
-ZLV
+XVV
FCS CHECKOUT
RCS HOT FIRE TEST
(ORB OPS, RCS) (2 Cmn)
Change DAP A to A1
MNVR CREW CONF ATT
R=62 P=207 Y=24
A/AUTO/VERN Init MNVR(22:25)
APU COOL OFF (On MCC Cue)
R2 APU FUEL PUMP/VLV COOL A-OFF
CREW CONF
(All)
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK
MEAL
(All)
CABIN CONFIG/STOW
(All)
P/TV05 SETUP (CREW CONF)
(PHOTO/TV, P/TV SCENES)
P/TV05 ACT (CREW CONF)
(PHOTO/TV, P/TV SCENES)
PVTOS INITIATION
(PL OPS, PVTOS) Run 9
INFORM CREW
GO FOR APU
COOL OFF
TV (TDRE)
(GND CNTL-CAB)

STS-26 (FD 04)

TDRS EW | GSTDN | MET DAY 003 | ATT | STS | PL | MCC

GWM HAW VAN GDX IOS GWM HAW IOS GWM HAW AGO IOS

A1(B1) AUTO/VERN

03:00 ORB 51

04:00 -ZLV +XVV ORB 52

05:00

06:00 ORB 53

07:00 -ZLV +XVV ORB 54

08:00

CABIN CONFIG/STOW
(All)

KU-BD ANT STOW
(ORB OPS, COMM/INST)

MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK

IMU ALIGN LOG
REQD ID:

-Y____ , -Z____ ANG ERR __ __ __
1 2 3

ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

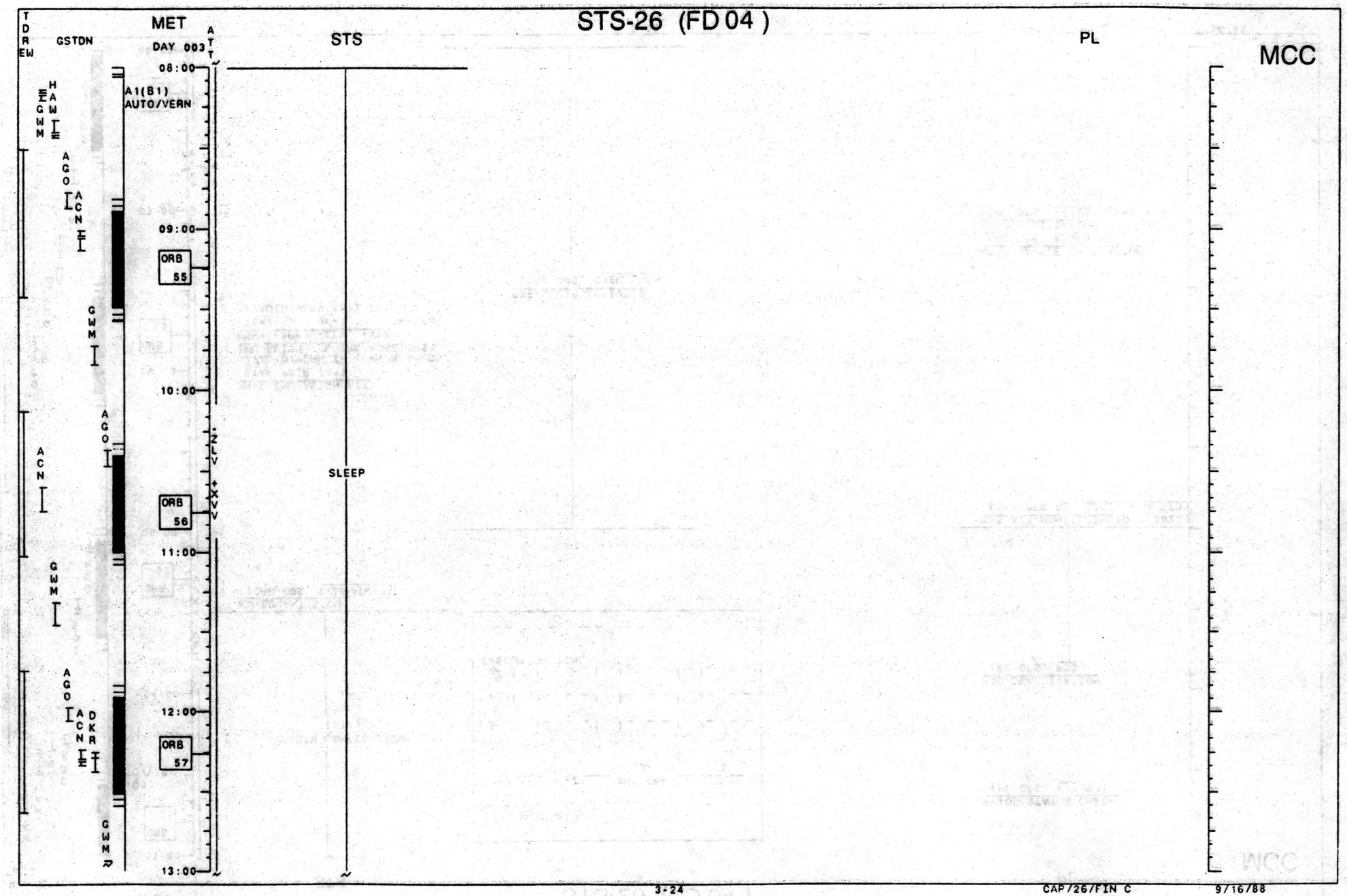
PVTOS STATUS CHECK
(PL OPS, PVTOS)

PCG DEACTIVATION
(PL OPS, PCG)

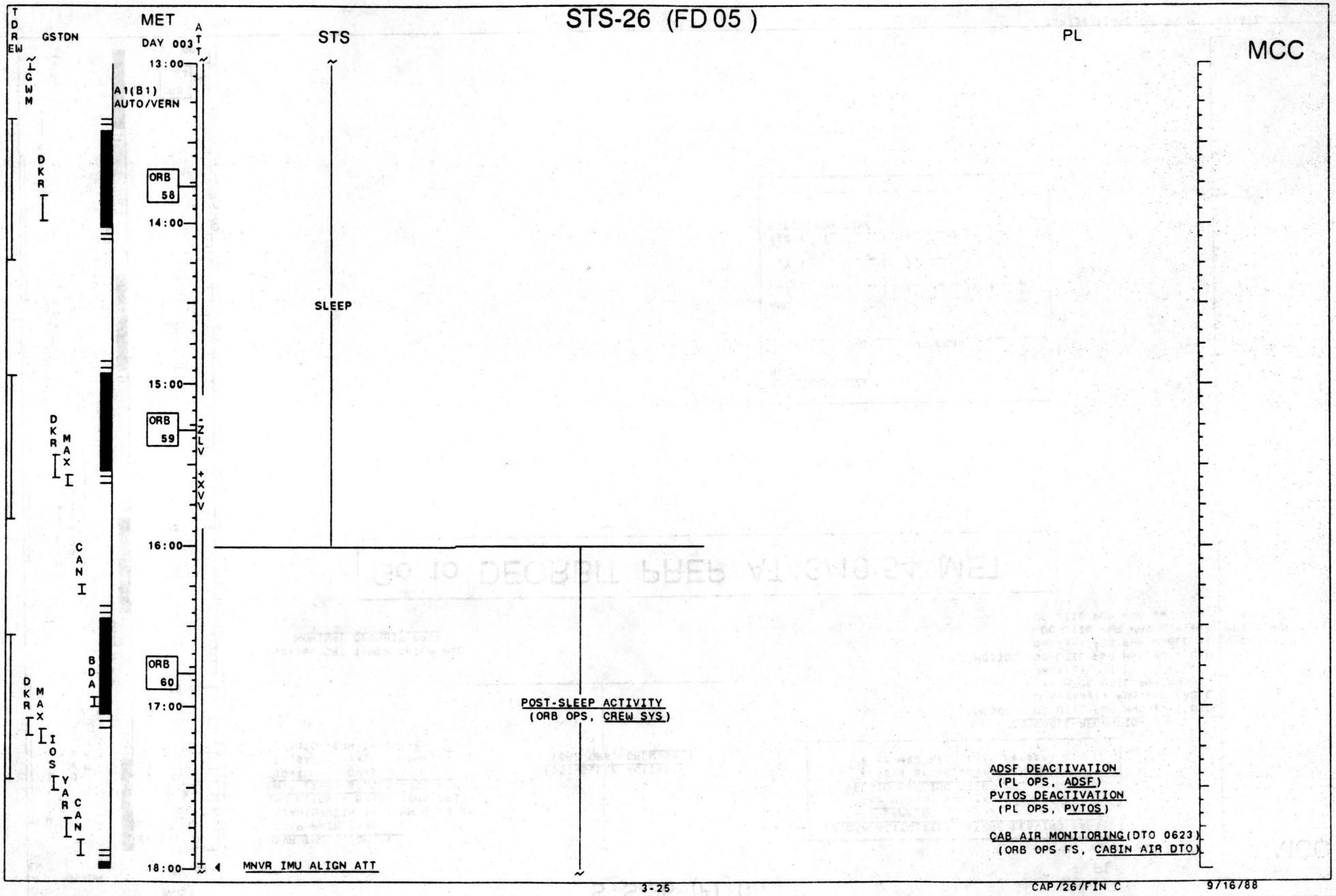
CAB AIR MONITORING (DTO 0623)
(ORB OPS FS, CABIN AIR DTO)

ADSF SAMPLE INITIATION
(PL OPS, ADSF)
PVTOS INITIATION
(PL OPS, PVTOS) Runs 4,8

STS-26 (FD 04)


TDRE W
GSTDN
MET
DAY 003
ATT
STS
PL
MCC
08:00
09:00
10:00
11:00
12:00
13:00
A1(B1)
AUTO/VERN
ORB 55
ORB 56
ORB 57
SLEEP
HAW
GWM
AGO
ACN
DKR
-ZLV
+XVV

STS-26 (FD 05)


MET
DAY 003
GSTDN
STS
PL
MCC
TDRE W
ICGWM
DKR
DKR
MAX
CAN
BDA
DKR
MAX
IOS
YAR
CAN
A1(B1)
AUTO/VERN
ORB 58
ORB 59
ORB 60
13:00
14:00
15:00
16:00
17:00
18:00
ATT
-ZLV
+XVV
SLEEP
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
MNVR IMU ALIGN ATT
ADSF DEACTIVATION
(PL OPS, ADSF)
PVTOS DEACTIVATION
(PL OPS, PVTOS)
CAB AIR MONITORING (DTO 0623)
(ORB OPS FS, CABIN AIR DTO)

STS-26 (FD 05)

TDRS EW | GSTDN | MET DAY 003 | STS | PL | MCC

MILA BDA DKR MAX IOS YAR CAN

MILA BDA DKR IOS YAR CAN

VAN GDX MILA BDA DKR YAR HAW

18:00 — A1(B1) AUTO/VERN — ORB 61

19:00

ORB 62

20:00

21:00

ORB 63

22:00

ORB 64

23:00

ATT IMU BIASED -XSI IMU DEORBIT BURN

MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
MNVR (TRK) BIASED -XSI ATT
TG=4 BV=5
P=184 Y=0 OM=270
A/AUTO/VERN Init TRK

Update: CRT TIMER SETUP PAD in **NOMINAL DEORBIT PREP**

POST-SLEEP ACTIVITY
(ORB OPS, **CREW SYS**)

EZ CAP ACTIVITIES BEFORE LEAVING CAP:
AIR SAMPLE
Rcd MET on bottle
FLUID LOADING PREP
Fill 4 drink containers with 8 oz H2O each (per person)

PDB CABLE RECONFIG
M030F DC UTIL PWR MNC sw - OFF
Disconnect PDB PWR CABLE from DC UTIL PWR MNC outlet
M013Q ✓DC UTIL PWR MNB sw - OFF
Connect PDB PWR CABLE to DC UTIL PWR MNB outlet
DC UTIL PWR MNB sw - ON

UPDATE CRT TIMER SETUP PAD

Go to DEORBIT PREP AT 3/19:54 MET

IMU ALIGN LOG
REQD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

ANG:
Δ^X ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
Δ^Y ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
Δ^Z ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

CONTINGENCY TIMELINES

7A TDRS INSERTION..... 4A-1

8D TDRS INSERTION..... 4B-1

16A TDRS INSERTION..... 4C-1

18A TDRS (EVA) INSERTION..... 4D-1

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7A TDRS INSERTION

The 7A Insertion Timeline is designed to accommodate delaying deployment of TDRS to the 7A insertion opportunity. The nominal timeline is used until the GO/NO-GO point in the deploy countdown for the nominal (6A insertion) timeline. The timeline is based on the nominal Cycle 3R OMS-2 insertion.

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
278:14:03/ 279:02:03	000:00:00/ 000:12:00	278:09:03/ 278:21:03	01/ 278 CDT	-24.0		OCTOBER 4, 1988	STS 26	FINAL REV C	9/16/88

CDT :278
FD :001
MET :000

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

STS

DEPLOY: OMS SEP BURN; WINDOW PROM MNVR; ΔSRM; FES DEF; IMU MNVR; IMU ALIGN; ZLV MNVR; SLEEP

PL

DEPLOY: LOAD PCMMU; PRE SLEEP; TDRS DEPLOY

NO GO: REM HT ACT; RDEMA CHTR; P/TV02 ACT; CLOSEOUT

IUS PI; DEPLOY; COUNTDOWN; LWR TBL -6; PCG ACT; DTO 0623; PSE SPACE; VEDS; TTS; ACTIVATE; ACTIVATE; ACTIVATE

THE 7A TIMELINE MAKES THE FOLLOWING ASSUMPTIONS:

- THE NOMINAL(6A INSERTION) TIMELINE IS USED UNTIL 0/05:55
- THE ORBITER IS IN THE NOMINAL DEPLOY ATTITUDE
- THE TILT TABLE IS ELEVATED TO 29 DEGREES
- 1 SET OF REM HEATERS IS POWERED
- THE P/TV SETUP HAS BEEN COMPLETED
- THIS TIMELINE CAN WITHSTAND A LAUNCH SLIP UP TO 2 HOURS 10 MINUTES

DAY/NIGHT

ORBIT: 2 3 4 5 6 7 8 9

GSTDN COVERAGE

YAR DKR HAW ACN VAN GDX MIL MLX BDA
YAR GWM HAW VAN GDX VTS ACN
MIL MLX BDA HTS VTS
GDX MIL GWM HAW VAN GTS HTS VTS
GWM HAW VAN IOS GTS HTS VTS IOS
GWM HAW VAN GTS HTS VTS IOS
GWM HAW ACN AGO IOS GWM HAW AGO ACN
ACN IOS GWM AGO ACN ACN

RTS COVERAGE

GTS HTS VTS
GTS HTS IOS
GTS HTS VTS IOS
GTS HTS VTS IOS GTS HTS

TDRS E W

ATTITUDE

DEPLOY SEP VIEW PROT IMU ZLV +XVV
ZLV, +XVV

*DTO 0623 CABIN AIR MONITORING

NOTES: 7A INSERTION

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
279:02:03/ 279:14:03	000:12:00/ 001:00:00	278:21:03/ 279:09:03	02/ 278 CDT	-22.7		OCTOBER 4, 1988	STS 26	FINAL REV C	9/16/88

CDT :278 22 23 0 CDT:279 1 2 3 4 5 6 7 8 9

FD :001 12 13 14 15 16 17 18 19 FD:002 20 21 22 23 0 MET:001

MET :000

STS

SLEEP

IMU MNVR

IMU ALIGN

COAS CAL

ZLV MNVR

KU BD DPLY

KU-BD ACT

BACK TO THE NOMINAL TIMELINE

POST SLEEP

RETURN TO THE NOMINAL TIMELINE AT 0/22:20.
ALL CREW SLEEP PERIODS AND PRE/POST SLEEP
ACTIVITIES WILL HAVE TO BE REPLANNED.

P/TV07 SETUP

PL.

IEF ACT

DAY/NIGHT

ORBIT 9 10 11 12 13 14 15 16

GSTDN COVERAGE: GWM, AGO, ACN, DKR, GWM, AGO, DKR, ACN, DKR, CAN, DKR, MAX, MAD, YAR, CAN, MIL, MLX, BDA, DKR, MAD, MAX, IOS, YAR, CAN, MIL, MLX, BDA, DKR, IOS, YAR, CAN, VAN, MLX, MIL, BDA, DKR, IOS, YAR, HAW

RTS COVERAGE: GTS, GTS, GTS, IOS, IOS, VTS, IOS, HTS

TDRS E W

ATTITUDE: -ZLV +XVV, IMU, -ZLV +XVV

AFT STATION
-ZLV, +XVV

NOTES:

7A INSERTION

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8D TDRS INSERTION

The 8D Insertion Timeline is designed to accommodate delaying deployment of TDRS for the 8D insertion opportunity. The 7A insertion timeline is used up to the GO/NO-GO decision point in the deploy countdown. An 8D insertion will be considered if a high probability of deploying exists or if a 16A insertion cannot be accommodated due to orbiter or IUS/TDRS problems. Additional assumptions are shown on page 4B-2. The timeline is based on the nominal Cycle 3R OMS-2 insertion.

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
278:14:03/ 279:02:03	000:00:00/ 000:12:00	278:09:03/ 278:21:03	01/ 278 CDT	-24.0		OCTOBER 4, 1988	STS 26	FINAL REV C	9/16/88

CDT :278 FD :001 MET :000

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

STS

MDL MNVR | MNVR | DPY ATT | DEPLOY | OMS SEP BURN | WINDOW PRO MNVR | ΔSRM | IMU MNVR | IMU ALIGN | ZLV MNVR | FEES DEF

THIS 8D TIMELINE MAKES THE FOLLOWING ASSUMPTIONS:

- THE 7A B/U INSERTION T/L IS USED UNTIL 0/07:30 MET
- THE IUS/TDRS ACTIVITIES ARE SHOWN TO GIVE THE LAST ACCEPTABLE TIME TO MAKE A SUCCESSFUL DEPLOY
- THE ORBITER IS IN THE DEPLOY ATTITUDE FOR 7A INSERTION
- THE TILT TABLE IS ELEVATED TO 29 DEGREES
- THE MDL UPLINK SHOULD OCCUR OVER IOS, THIS ALLOWS HTS TO BE A BACKUP
- A CLEAR TRACKING ARC IS AVAILABLE AS SHOWN IF A STATE VECTOR UPDATE IS REQUIRED
- REM HEATERS ARE POWERED OFF IN THE 7A INSERTION T/L, THEY ARE NOT REQUIRED TO BE REPOWERED AGAIN FOR THIS 8D INSERTION
- THE P/TV SETUP ACTIVITY WAS PERFORMED IN THE NOMINAL 6A T/L
- THIS TIMELINE CANNOT WITHSTAND ANY LAUNCH SLIPS
- THE MIDDECK PAYLOAD ACTIVITIES WILL BE REPLANNED

DEPLOY NO GO

LOAD PCMMU | PRE SLEEP

TDRS DEPLOY

P/TV02 ACT

PL

REM HT ACT | REMACT HTR | IUS PDCO | MDL UPLK | IUS PI | DEPLOY COUNTDOWN | LWR TBL -6 | CLOSEOUT

DAY/NIGHT

ORBIT 2 3 4 5 6 7 8 9

GSTDN COVERAGE: YAR, HAW, VAN, GDX, MIL, MLX, BDA, DKR, ACN, YAR, GWM, HAW, VAN, GDX, MIL, MLX, BDA, ACN, GWM, HAW, VAN, GDX, MIL, ACN, GWM, HAW, VAN, GWM, HAW, VAN, IOS, GWM, HAW, AGO, IOS, GWM, HAW, AGO, ACN, IOS, GWM, AGO, ACN, ACN, ACN

RTS COVERAGE: HTS, VTS, GTS, HTS, VTS, GTS, HTS, VTS, GTS, HTS, IOS, GTS, HTS, IOS, GTS, HTS, IOS, GTS, HTS, IOS, GTS, HTS

TDRS E W

ATTITUDE: DPLY, MDL, DPLY SEP, VIEW, PROT, IMU

PRE-DPY CK (TDRE) | -ZLV, +XVV

NOTES: 8D INSERTION

TRACKING ARC

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
279:02:03/ 279:14:03	000:12:00/ 001:00:00	278:21:03/ 279:09:03	02/ 278 CDT	-22.7		OCTOBER 4,1988	STS 26	FINAL REV C	9/16/88

CDT :278 22 23 0 CDT:279 1 2 3 4 5 6 7 8 9
FD :001 12 13 14 15 16 17 18 19 20 21 FD:002 22 23 0 MET:001
MET :000

STS		SLEEP		IMU MNVR; IMU ALIGN; CDAS CAL; ZLV MNVR
	PRE SLEEP		POST SLEEP	
	RETURN TO THE NOMINAL TIMELINE AT 1/00:00. ALL CREW SLEEP PERIODS AND PRE/POST SLEEP ACTIVITIES WILL HAVE TO BE REPLANNED. PCG ACTIVATION, IEF ACTIVATION, PPE, KU BAND DEPLOY ACTIVITIES AND VTR PLAYBACK WILL HAVE TO BE REPLANNED.			
PL				

BACK TO THE NOMINAL TIMELINE

DAY/NIGHT

ORBIT: 9 10 11 12 13 14 15 16

GSTDN COVERAGE: GWM, AGO, ACN, DKR, GWM, AGO, DKR, ACN, DKR, CAN, DKR, MAX, MAD, YAR, CAN, MIL, MLX, BDA, DKR, MAD, MAX, IOS, YAR, CAN, MIL, MLX, BDA, DKR, IOS, YAR, CAN, VAN, MLX, MIL, BDA, DKR, IOS, YAR, HAW

RTS COVERAGE: GTS, GTS, GTS, IOS, IOS, VTS, IOS, HTS

TDRS E W

ATTITUDE: -ZLV +XVV, IMU

AFT STATION
-ZLV, +XVV

NOTES: 8D INSERTION

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16A TDRS INSERTION

The 16A Insertion Timeline is designed to accommodate delaying deployment of TDRS for the 16A insertion opportunity. The timeline assumes an attempt at 7A insertion failed at the GO/NO-GO decision point in the deploy countdown procedure. The timeline begins during crew post sleep and assumes the tilt table is stowed at 0°. Additional assumptions are shown on page 4C-2. The timeline is based on the nominal Cycle 3R OMS-2 insertion.

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
278:14:03/ 279:02:03	000:00:00/ 000:12:00	278:09:03/ 278:21:03	01/ 278 CDT	-24.0		OCTOBER 4, 1988	STS-26	FINAL, REV C	8/19/88

CDT :278 / FD :001 / MET :000

STS: ZLV MNVR | IMU ALIGN (YAW) | FES OFF | SLEEP

DEPLOY: PRE SLEEP

NO GO: RESTOW IUS

PL: DEPLOY | COUNTDOWN | OTPS 6 OVERTS 2 SPACE 3 | PVAR TS OUT ACT | ADS ACCEPT | ADS ACCEPT

THIS 16A TIMELINE MAKES THE FOLLOWING ASSUMPTIONS:
- THE 7A INSERTION TIMELINE IS USED UNTIL 0/07:30 MET
- THE FD2 MORNING IMU ALIGN IS A STAR-OF-OPPORTUNITY ALIGN
- P/TV CAMERA SETUP STILL IN PLACE
- THE IUS/TDRS ACTIVITIES ARE SCHEDULED AT THE LAST ACCEPTABLE TIME FOR A SUCCESSFUL 16A DEPLOY
- THE TIMELINE RETURNS TO NOMINAL AT 0/23:30 MET
- THE COAS CALIBRATION SHOULD BE PERFORMED DURING PRE-SLEEP ACTIVITIES ON FD 2
- PCG, PPE, AND IEF ACTIVITIES SHOULD BE REPLANNED.

DAY/NIGHT

ORBIT: 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

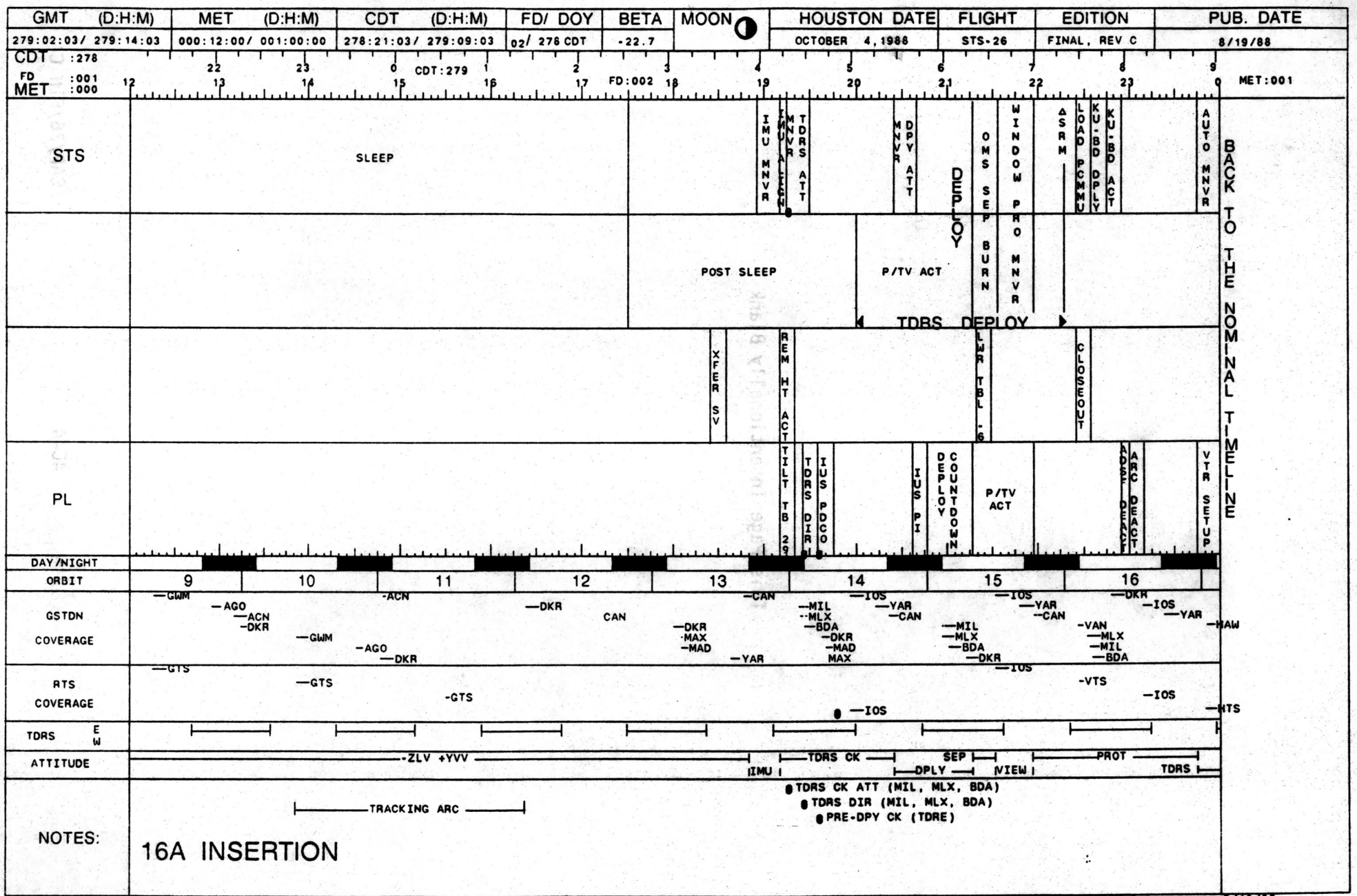
GSTDN COVERAGE: YAR, HAW, VAN, GDX, MIL, MLX, BDA, DKR, ACN, YAR, GWM, HAW, VAN, GDX, ACN, MIL, GWM, HAW, VAN, GDX, VAN, MIL, ACN, GWM, HAW, VAN, IOS, GWM, HAW, AGO, IOS, GWM, HAW, AGO, ACN, IOS, GWM, AGO, ACN, ACN, ACN

RTS COVERAGE: HTS, VTS, GTS, HTS, GTS, HTS, VTS, HTS, VTS, IOS, GTS, HTS, HTS, IOS, GTS, HTS, IOS, GTS, HTS

TDRS E W

ATTITUDE: DPLY ATT, -ZLV +YVV, IMU, -ZLV +YVV, -ZLV, +YVV

NOTES: 16A INSERTION


GMT (D:H:M) 279:02:03/ 279:14:03
MET (D:H:M) 000:12:00/ 001:00:00
CDT (D:H:M) 278:21:03/ 279:09:03
FD/ DOY 02/ 278 CDT
BETA -22.7
MOON
HOUSTON DATE OCTOBER 4, 1988
FLIGHT STS-26
EDITION FINAL, REV C
PUB. DATE 8/19/88
CDT :278
FD :001
MET :000
CDT:279
FD:002
MET:001
STS
SLEEP
IMU MNVR
IMU ALIGN
MNVR
TDRS ATT
MNVR
DPY ATT
DEPLOY
OMS SEP BURN
WINDOW PRO MNVR
ΔSRM
LOAD PCMMU
KU-BD DPLY
KU-BD ACT
AUTO MNVR
BACK TO THE NOMINAL TIMELINE
POST SLEEP
P/TV ACT
TDRS DEPLOY
XFER SV
REM HT ACT
LWR TBL -6
CLOSEOUT
PL
TILT TB 29
TDRS DIR
IUS PDCO
IUS PI
DEPLOY COUNTDOWN
P/TV ACT
ADSF DEACT
ARC DEACT
VTR SETUP
DAY/NIGHT
ORBIT
9
10
11
12
13
14
15
16
GSTDN COVERAGE
GWM
AGO
ACN
DKR
GWM
AGO
DKR
ACN
DKR
CAN
DKR
MAX
MAD
YAR
CAN
MIL
MLX
BDA
DKR
MAD
MAX
IOS
YAR
CAN
MIL
MLX
BDA
DKR
IOS
YAR
CAN
VAN
MLX
MIL
BDA
DKR
IOS
YAR
HAW
RTS COVERAGE
GTS
GTS
GTS
IOS
IOS
VTS
IOS
NTS
TDRS E W
ATTITUDE
ZLV +YVV
IMU
TDRS CK
DPLY
SEP
VIEW
PROT
TDRS
TRACKING ARC
TDRS CK ATT (MIL, MLX, BDA)
TDRS DIR (MIL, MLX, BDA)
PRE-DPY CK (TDRE)
NOTES:
16A INSERTION

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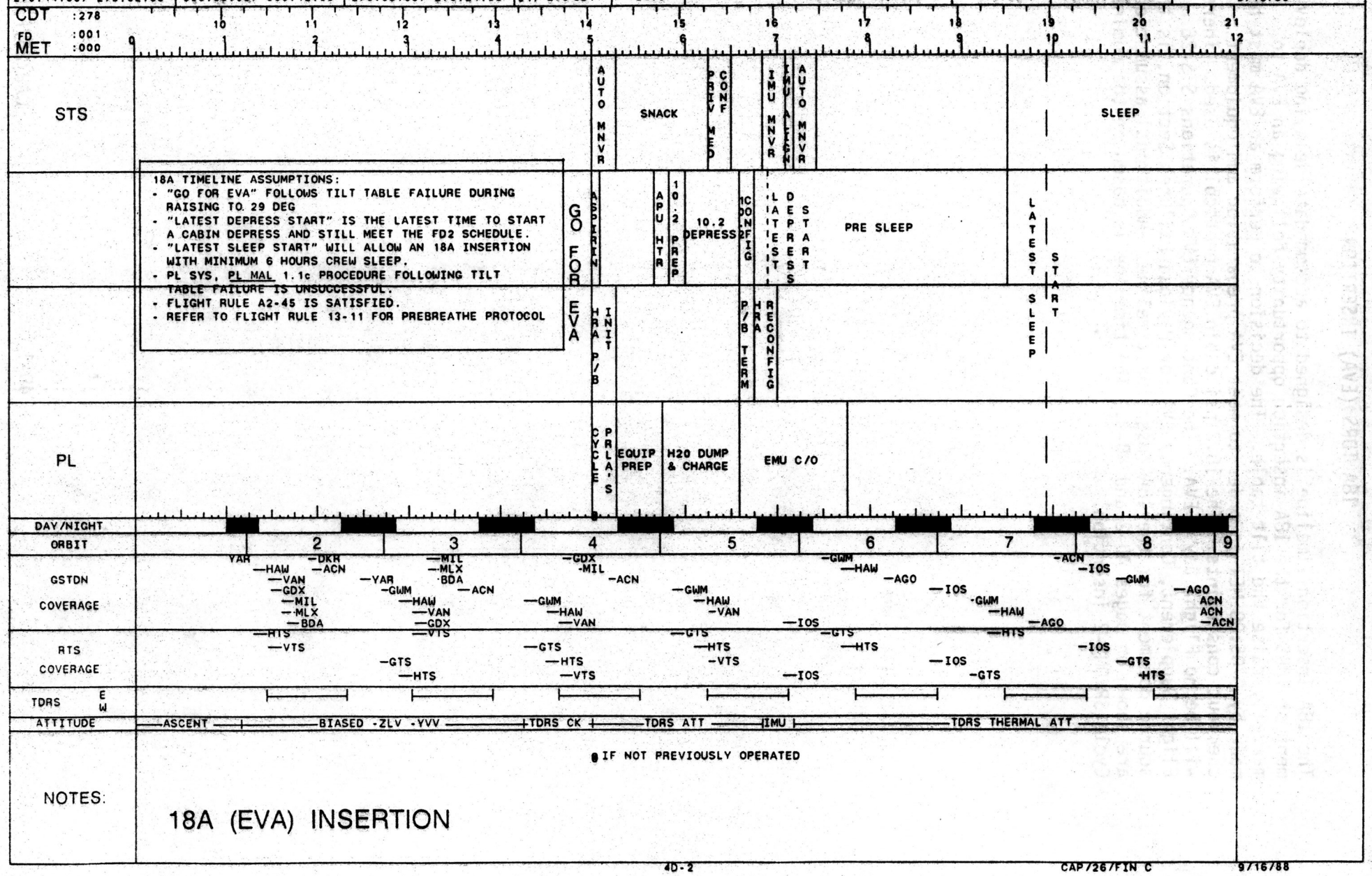
18A TDRS (EVA) INSERTION

The 18A Insertion Timeline is designed to accommodate delaying deployment of TDRS for the 18A insertion opportunity following an EVA to manually raise the tilt table. The decision to perform an EVA must be made by 0/05:00 MET in order to meet EVA preparation and equipment checkout constraints. The 10.2 psi cabin EVA protocol is used. There will be no Flight Day 1 EVA. The Contingency EVA Operations STS-26 Flight Supplement, Contingency EVA for Payload Failures Section, is the source document for the 18A insertion timeline. Additional assumptions are shown on pages 4D-2 and 4D-3. The timeline is based on the nominal Cycle 3R OMS-2 insertion.

18A TDRS

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
278:14:03/ 279:02:03	000:00:00/ 000:12:00	278:09:03/ 278:21:03	01/ 278 CDT	-24.0		OCTOBER 4, 1988	STS-26	FINAL, REV C	9/16/88



18A TIMELINE ASSUMPTIONS:
- "GO FOR EVA" FOLLOWS TILT TABLE FAILURE DURING RAISING TO 29 DEG
- "LATEST DEPRESS START" IS THE LATEST TIME TO START A CABIN DEPRESS AND STILL MEET THE FD2 SCHEDULE.
- "LATEST SLEEP START" WILL ALLOW AN 18A INSERTION WITH MINIMUM 6 HOURS CREW SLEEP.
- PL SYS, PL MAL 1.1c PROCEDURE FOLLOWING TILT TABLE FAILURE IS UNSUCCESSFUL.
- FLIGHT RULE A2-45 IS SATISFIED.
- REFER TO FLIGHT RULE 13-11 FOR PREBREATHE PROTOCOL

● IF NOT PREVIOUSLY OPERATED

NOTES:

18A (EVA) INSERTION

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
279:02:03/ 279:14:03	000:12:00/ 001:00:00	278:21:03/ 279:09:03	02/ 278 CDT	-22.7		OCTOBER 4, 1988	STS-26	FINAL, REV C	9/16/88

CDT :278 22 23 0 CDT:279 1 2 3 4 5 6 7 8 9
FD :001 FD: 002
MET :000 12 13 14 15 16 17 18 19 20 21 22 23 0 MET:001

STS

SLEEP | IMU MNVR | IMU ALIGN | AUTO MNVR | MNVR TDRS ATT | REM HT ACT | TDRS DIR | RDEMACHTR | MNVR DPY ATT

POST SLEEP | P/TV02 SETUP | P/TV02 ACT

PL

FD2 ASSUMPTIONS:
- IUS/TDRS IS THERMALLY DEPLOYABLE ON FD2.
- ATTEMPTS WILL BE MADE TO RAISE THE IUS/TDRS PRIOR TO THE AIRLOCK DEPRESS. IF SUCCESSFUL THE EVA WILL NOT OCCUR AS SCHEDULED.
- ATTEMPTS TO RAISE PAST 29 DEG PRIOR TO EVA (UMBILICALS DISCONNECTED) MUST WAIT UNTIL AFTER "18A BAT" TIME LIMIT ON IUS BATTERIES.
- TDRS DIRECT CHECK OPPORTUNITIES: MIL 15, CAN 15, MIL 16.
- THE TIMELINE RETURNS TO NOMINAL AT 01/09:00.
- MIDDECK PAYLOAD ACTIVITIES SHOULD BE REPLANNED.

75 MIN EVA PREP | SUIT P/B | AL DEPRESS | EGRESS | EVA

XFER SV | IUS PDCO | PLB PREP 18A BAT | EVA SUPPORT 16A DPY, 19A BAT, 17A DPY | IUS PI | DEPLOY | COUNTDOWN

DAY/NIGHT

ORBIT 9 10 11 12 13 14 15 16

GSTDN COVERAGE: GWM, AGO, ACN, DKR, GWM, AGO, DKR, ACN, DKR, CAN, DKR, MAD, YAR, CAN, MIL, MLX, BDA, DKR, MAD, IOS, YAR, CAN, MIL, MLX, BDA, DKR, IOS, YAR, CAN, VAN, MLX, MIL, BDA, DKR, IOS, YAR, HAW

RTS COVERAGE: GTS, GTS, GTS, IOS, IOS, VTS, IOS, HTS

TDRS E W

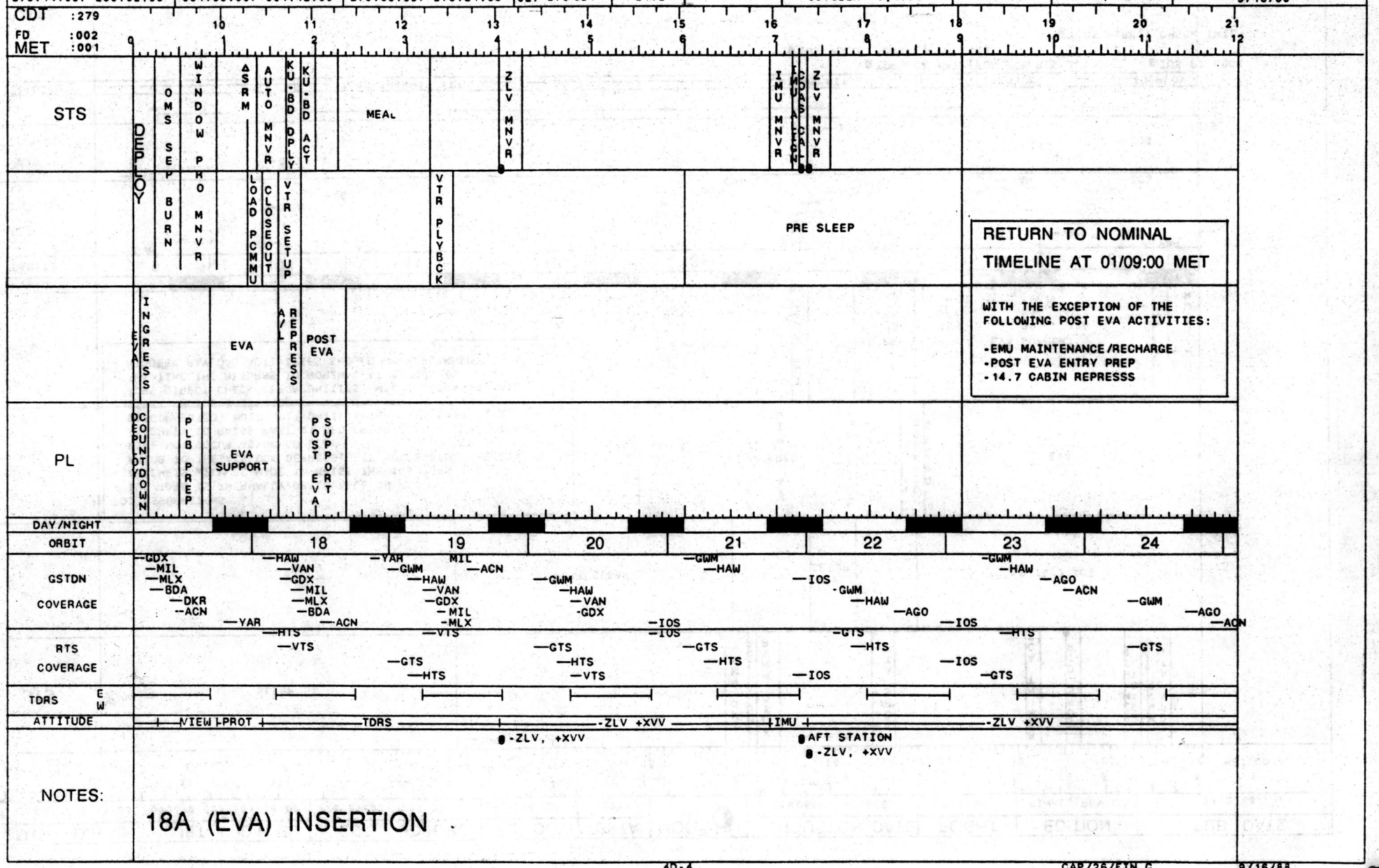
ATTITUDE: TDRS THERMAL ATT | IMU | TDRS ATT | TDRS CK | DEPLOY

TDRS CK ATT (FOR MIL REV 15)
IUS PDCO (TDRS-E) (✓ 64K)
IUS PI LOCK
TDRS DIRECT CHECK (MIL)

NOTES:

18A (EVA) INSERTION

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
279:14:03/ 280:02:03	001:00:00/ 001:12:00	279:09:03/ 279:21:03	02/ 279 CDT	-21.2		OCTOBER 5, 1988	STS-26	FINAL, REV C	9/16/88



NOTES:

18A (EVA) INSERTION

STS 26 (FD01) 18A (EVA) INSERTION

TDREW | RTS | GSTDN

MET DAY 000

05:00 — A1(B1) AUTO/VERN

06:00

07:00

08:00

09:00

10:00

ATT | TDRS ATT | IMU | TDRS THERMAL ATT

ORB 5 | ORB 6 | ORB 7

STS

MNVR TDRS THERMAL ATT
✓MCC for attitude update

SNACK

PRIVATE MEDICAL CONFERENCE
(✓MCC for scheduling)

MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
MNVR TDRS THERMAL ATT
✓MCC for attitude update

SLEEP

PL

EVA ASPIRIN PROTOCOL
(EVA, NOMINAL PROCS)

A12 APU HTR GAS GEN/FUEL PUMP (three)-A AUTO
PREP FOR 10.2 PSI CABIN
(EVA, 10.2 PSI CABIN) (2 Cmn)
CABIN DEPRESS TO 10.2 PSI
(EVA, 10.2 PSI CABIN)
(2 Cmn)

10.2 PSI CABIN CONFIG
(EVA, 10.2 PSI CABIN)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

HRA PREBREATHE INITIATE
(EVA, 10.2 PSI CABIN)
(2 Cmn)

HRA PREBREATHE TERMINATE
(EVA, 10.2 PSI CABIN)(2 Cmn)
HRA RECONFIG
(EVA, 10.2 PSI CABIN)

CYCLE IUS PRLAS (If req'd)
(IUS DPY, CONTINGENCY OPS)

AIRLOCK PREP
(EVA, EQUIP PREP)
(2 Cmn)

H2O DUMP & H2O CHARGE
(EVA, EMU MAINT/RECHARGE)
EMU 1 & 2
(2 Cmn)

EMU CHECKOUT AT 10.2 PSI
(EVA, EMU CHECKOUT)
(2 Cmn)
Perform after CABIN DEPRESS complete

IMU ALIGN LOG
REOD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

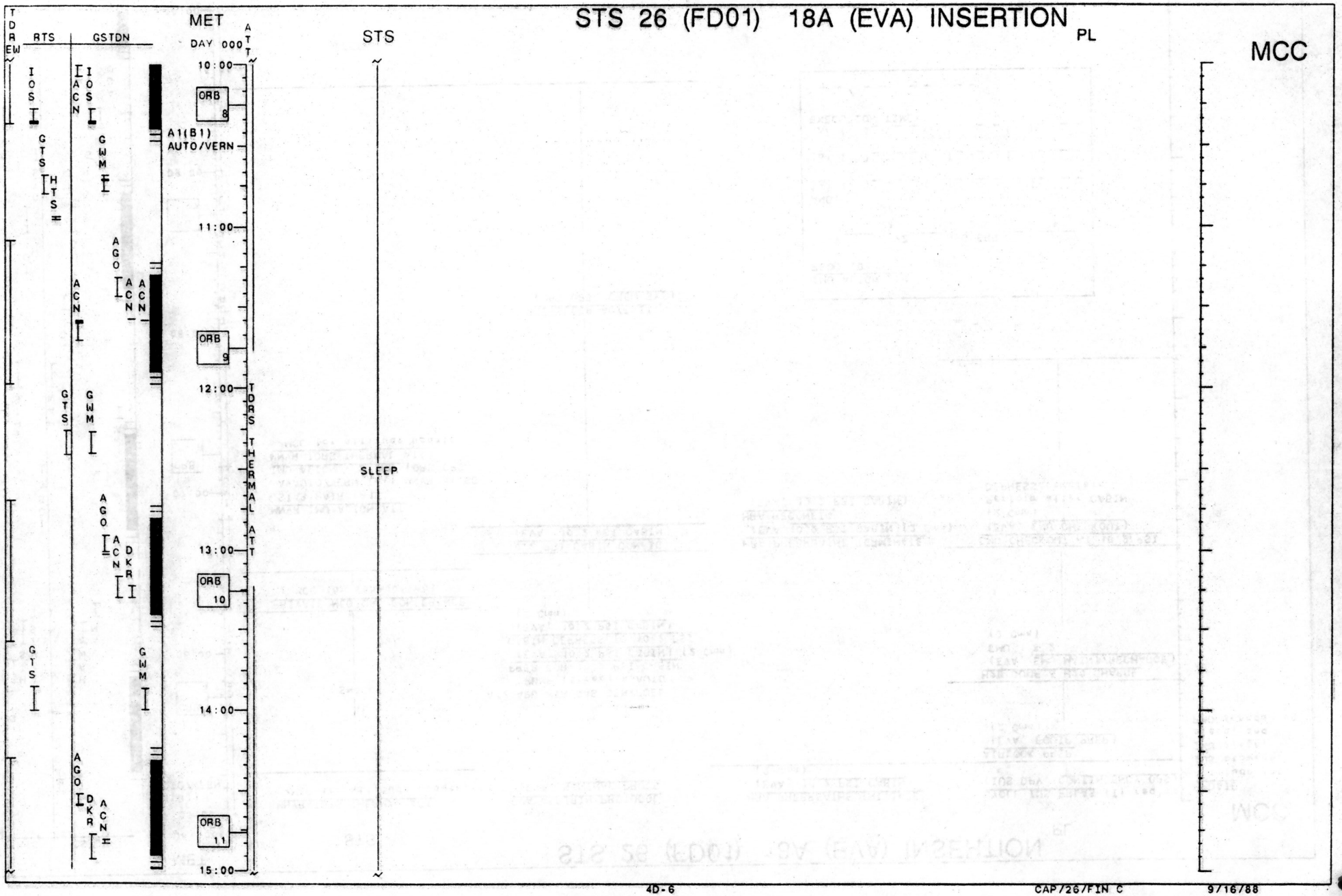
ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

MCC

UPDATE
Attitude for IUS stowage, IMU align, sleep, and PMC scheduling

STS 26 (FD01) 18A (EVA) INSERTION



STS 26 (FD02) 18A (EVA) INSERTION

TDRE W | RTS | GSTDN | MET DAY 000 | ATT | STS | PL | MCC

15:00

A1(B1) AUTO/VERN

GTS H

SLEEP

16:00

ORB 12

DKR

TDRS THERMAL ATT

17:00

CAN I

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

ORB 13

DKR MAX H MAD

18:00

EVA PREP
(EVA, EVA PREP)
(3 Cmn)

YAR

CAN H

IMU

MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
MNVR TDRS THERMAL ATT
✓MCC for attitude update

19:00

ORB 14

MIL H MLX H BDA DKR MAD

MAX I

TDRS ATT

75 Min in-Suit
Prebreathe

P/TV02 SETUP (SAT DEPLOY)
(PHOTO/TV, P/TV SCENES)

IOS R

IOS R

20:00

IMU ALIGN LOG
REQD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

TRANSFER SV (TDRE)
(IUS DPY, LATE CHECKS)

IUS PRE-DEPLOY C/O (TDRE)
(IUS DPY, EARLY CHECKS)

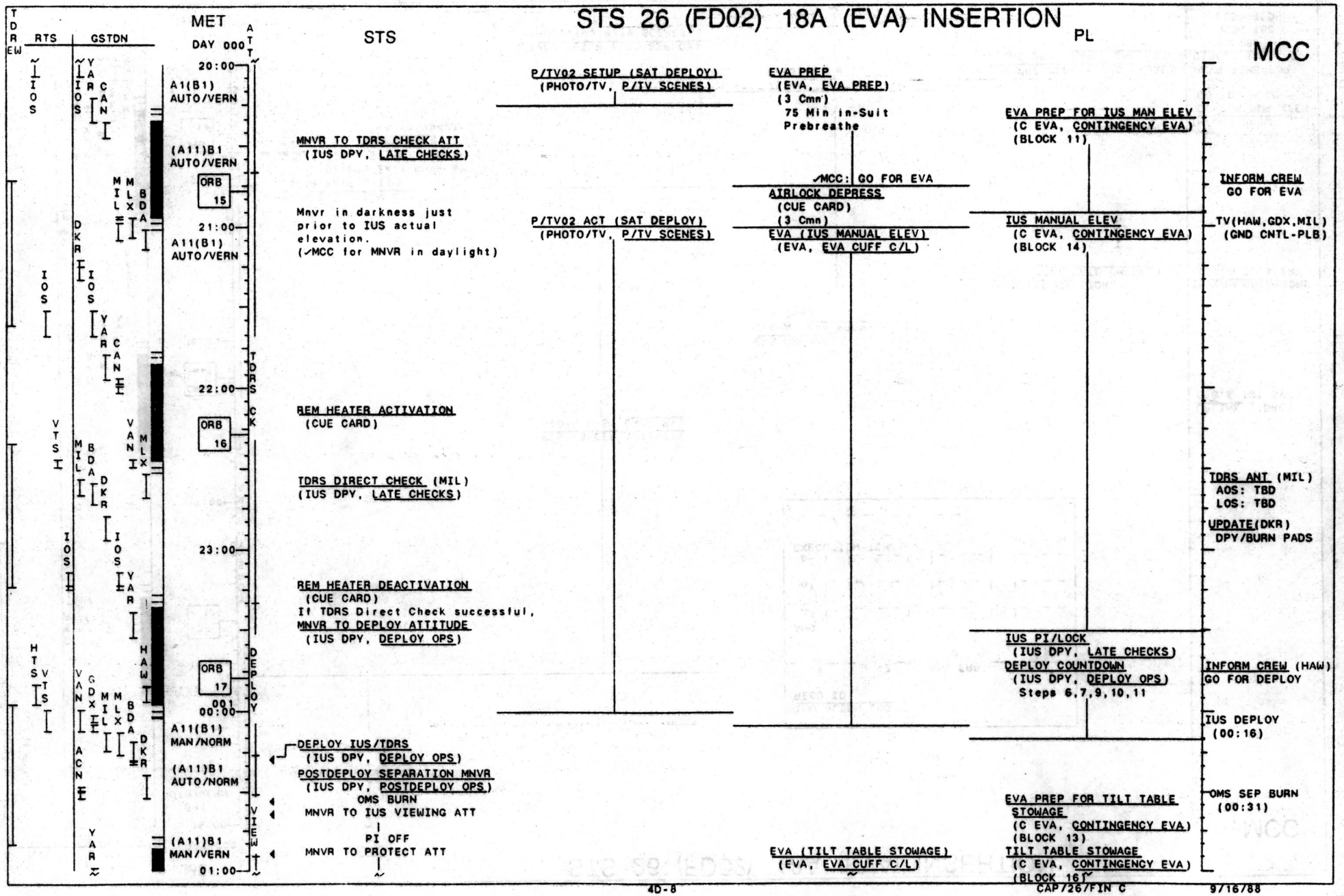
UPLINK (TDRE)
ORB & TGT SV

INFORM CREW (TDRE)
GO FOR SV XFER

INFORM CREW
GO FOR PWR XFER
GO FOR PDCO

MNVR TIME FOR
DIRECT IUS CMD
IOS: TBD
AOS: TBD
LOS: TBD

STS 26 (FD02) 18A (EVA) INSERTION



CAP/26/FIN C 9/16/88

STS 26 (FD02) 18A (EVA) INSERTION

TDREW | RTS | GSTDN | MET DAY 001 | STS | PL | MCC

01:00

ORB 18

A1(B1) AUTO/VERN

POSTDEPLOY SEPARATION MNVR

Change DAP A to A1
MNVR TDRS ATT
R=62 P=207 Y=24
A/AUTO/VERN (01:25) Init MNVR
KU-BD ANT DEPLOY
(ORB OPS, COMM/INST)
KU-BD ACTIVATION (COMM mode)
(ORB OPS, COMM/INST)

LOAD PCMMU FORMAT (ORB OPS)
Load 103 / 161
CLOSEOUT
(IUS DPY, POSTDEPLOY OPS)
VTR SETUP (02-SAT DPY)
(Cue Card, TV/VTR)

EVA (TILT TABLE STOWAGE)
(EVA, EVA CUFF C/L)

TILT TABLE STOWAGE
(C EVA, CONTINGENCY EVA)
(BLOCK 16)

SRM 1 IGNITION
(01:17)

AIRLOCK REPRESS
(CUE CARD)
(3 Cmn)

POST EVA
(EVA, POST EVA)
(3 Cmn)

POST EVA SUPPORT
(EVA, POST EVA)

02:00

ORB 19

MEAL
(All)

03:00

VTR PLAYBACK (02-SAT DPY)
(Cue Card, TV/VTR)
VTR at MIL

VTR (MIL)

04:00

ORB 20

MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK

05:00

ORB 21

06:00

STS 26 (FD02) 18A (EVA) INSERTION

TDRS EW | RTS | GSTDN | MET DAY 001 | STS | PL | MCC

06:00 — A1(B1) AUTO/VERN

07:00 — (A1)B5 MAN/VERN — ORB 22 — A1(B1) AUTO/VERN

08:00

ORB 23

09:00

10:00

ORB 24

11:00

019 ✓COAS PWR-OFF Mount COAS-AFT

MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS

IMU ALIGN - S TRK (ORB OPS)
COAS CALIBRATION (ORB OPS)
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK

019 ✓COAS PWR - OFF Stow COAS

Change DAP B to B1

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

GO TO CAP, DETAILED TIMELINE, 3-8

IMU ALIGN LOG
REQD ID:

-Y____ , -Z____ ANG ERR __ . __ __
1 2 3

ANG:
ΔX ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔY ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
ΔZ ( )_ . _ _ ( )_ . _ _ ( )_ . _ _
EXECUTION TIME:

_ _ / _ _ : _ _ : _ _

COAS CALIBRATION LOG

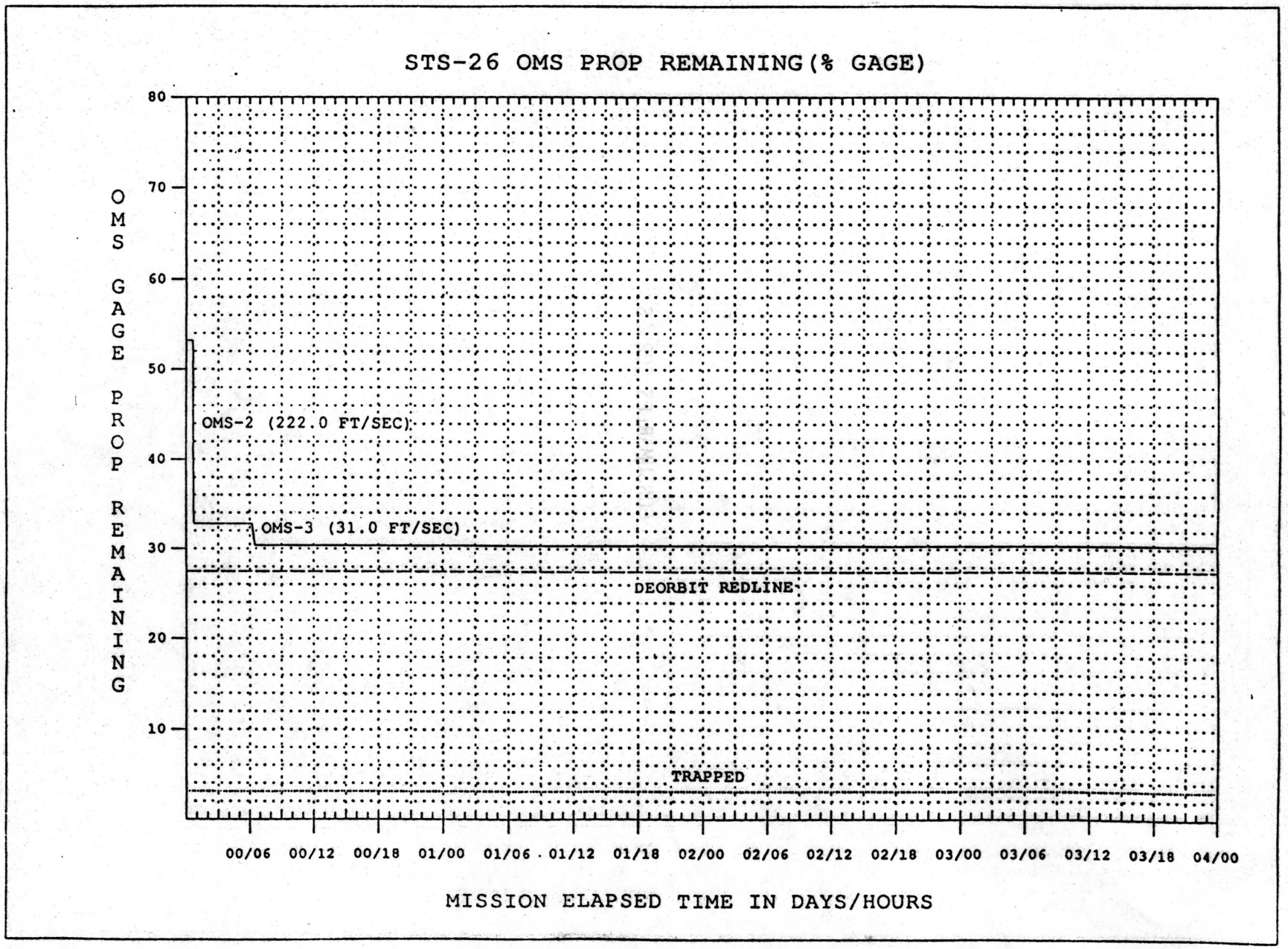
STAR ID: -Z ___ , _____
STAR AVAIL: _ _:_ _ TO _ _:_ _

-Z Δ BIAS ____ . ____ ____

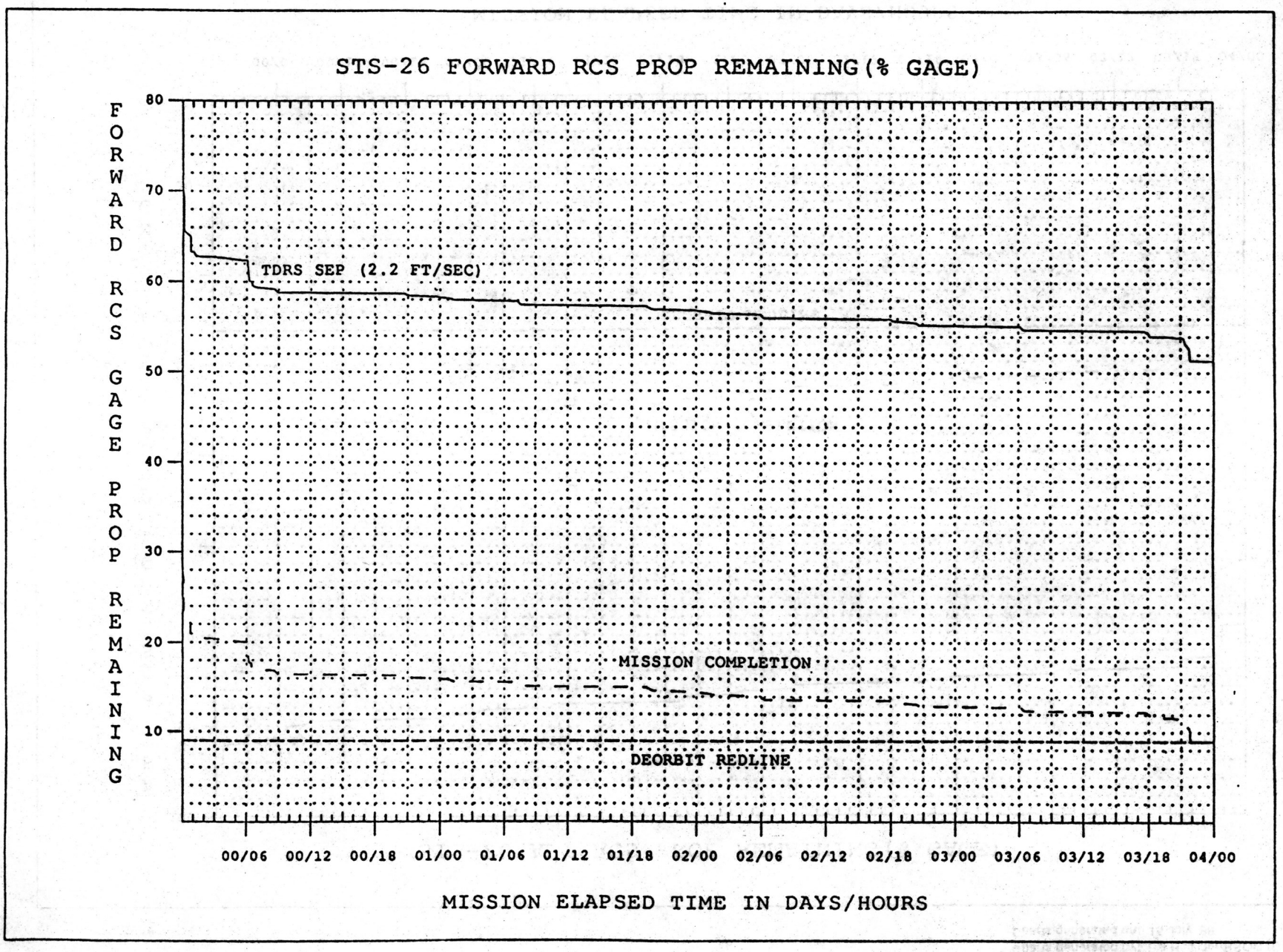
UPDATE TIME: ___ /___ : ___ : ___

CONSUMABLES CURVES

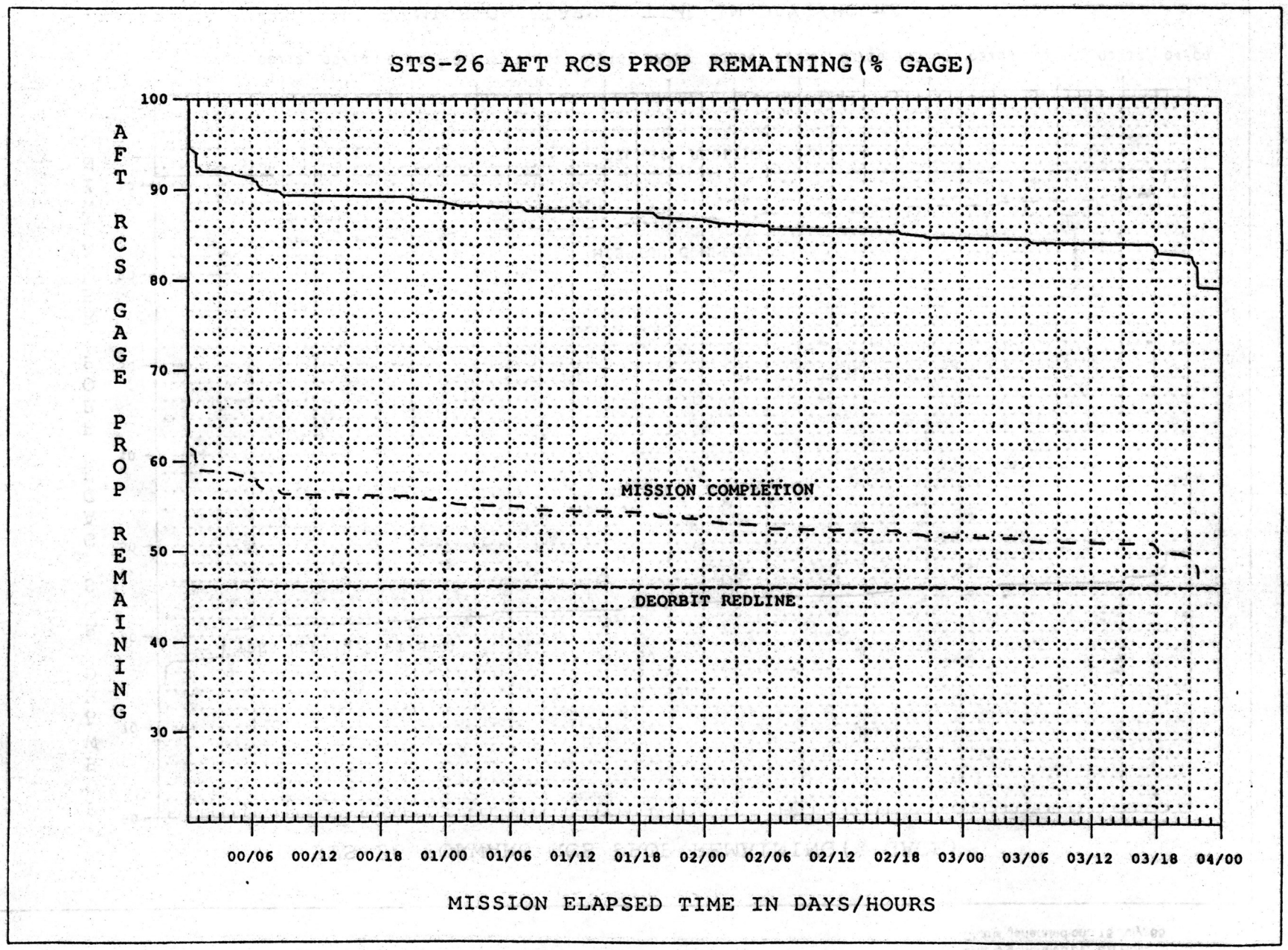
FIDP: CY3/26B/May 88
CAP/ATL: Basic, 25 Nov. 87
Charts generated by: Bill Hollister/RSOC (DF75)
Charts generated on: 15 July, 88



FIDP: CY3/26B/May 88
CAP/ATL: Basic, 25 Nov. 87
Charts generated by: Bill Hollister/RSOC (DF75)
Charts generated on: 15 July, 88



FIDP: CY3/26B/May 88
CAP/ATL: Basic, 25 Nov. 87
Charts generated by: Bill Hollister/RSOC (DF75)
Charts generated on: 15 July, 88

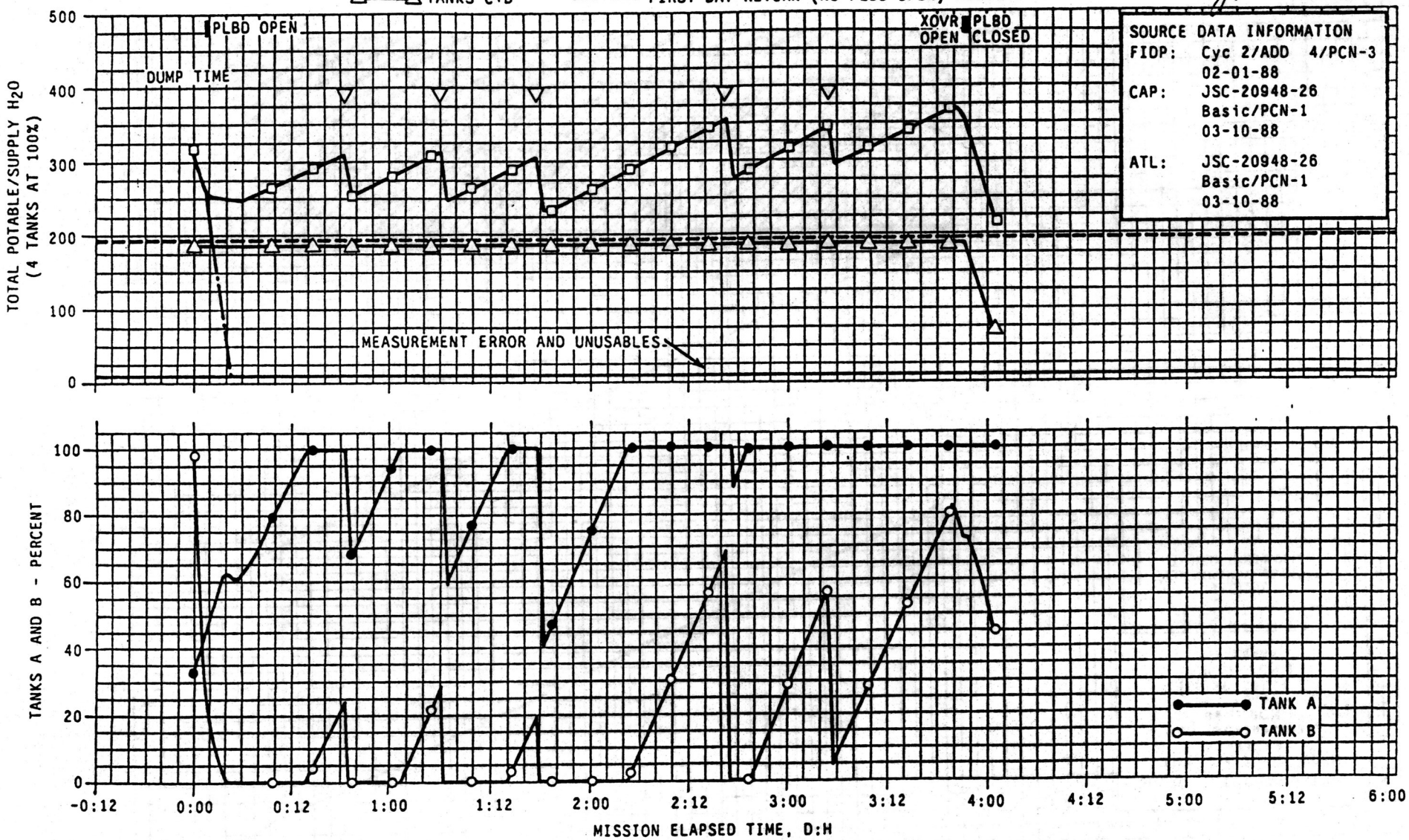


MISSION OPERATIONS DIRECTORATE-SYSTEMS DIVISION

KHANDAKER M. RAHMAN
ANALYSIS DATE: 04-04-88
TRAJ CYCLE: OFP-2

TANKS A-D
TANKS C+D
ANYTIME CONTINGENCY DEORBIT
FIRST DAY RETURN (NO PLBD OPEN) REDLINE

DATE CONFIRMED: J Rieder 7/11/88

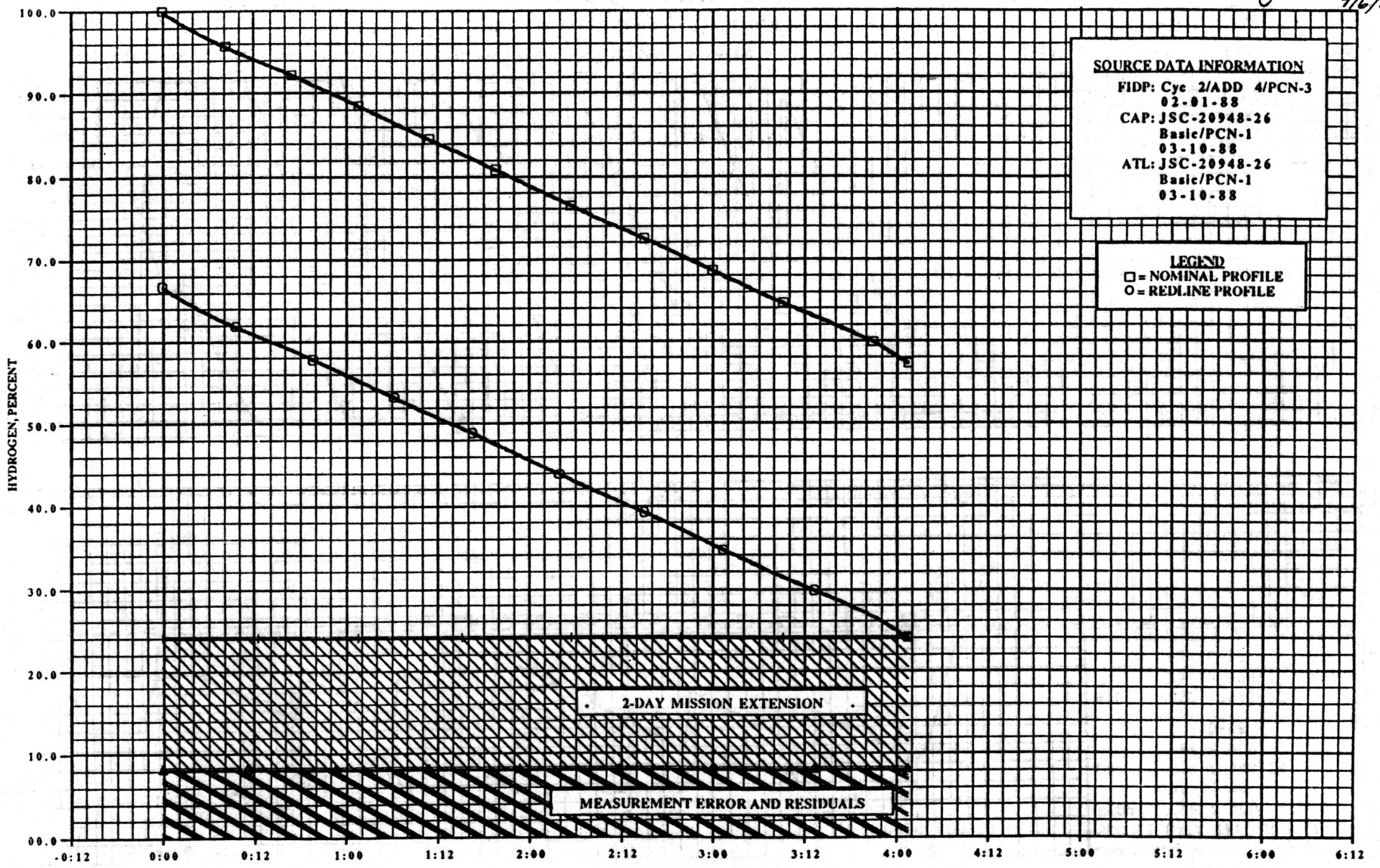


STS-26 SUPPLY WATER

R. D. PECHACEK
ANALYSIS DATE: 04-04-88
TRAJ CYCLE: OFP-2

MISSIONS OPERATIONS DIRECTORATE
SYSTEMS DIVISION

DATA CONFIRMED: J. Clark 4/6/88

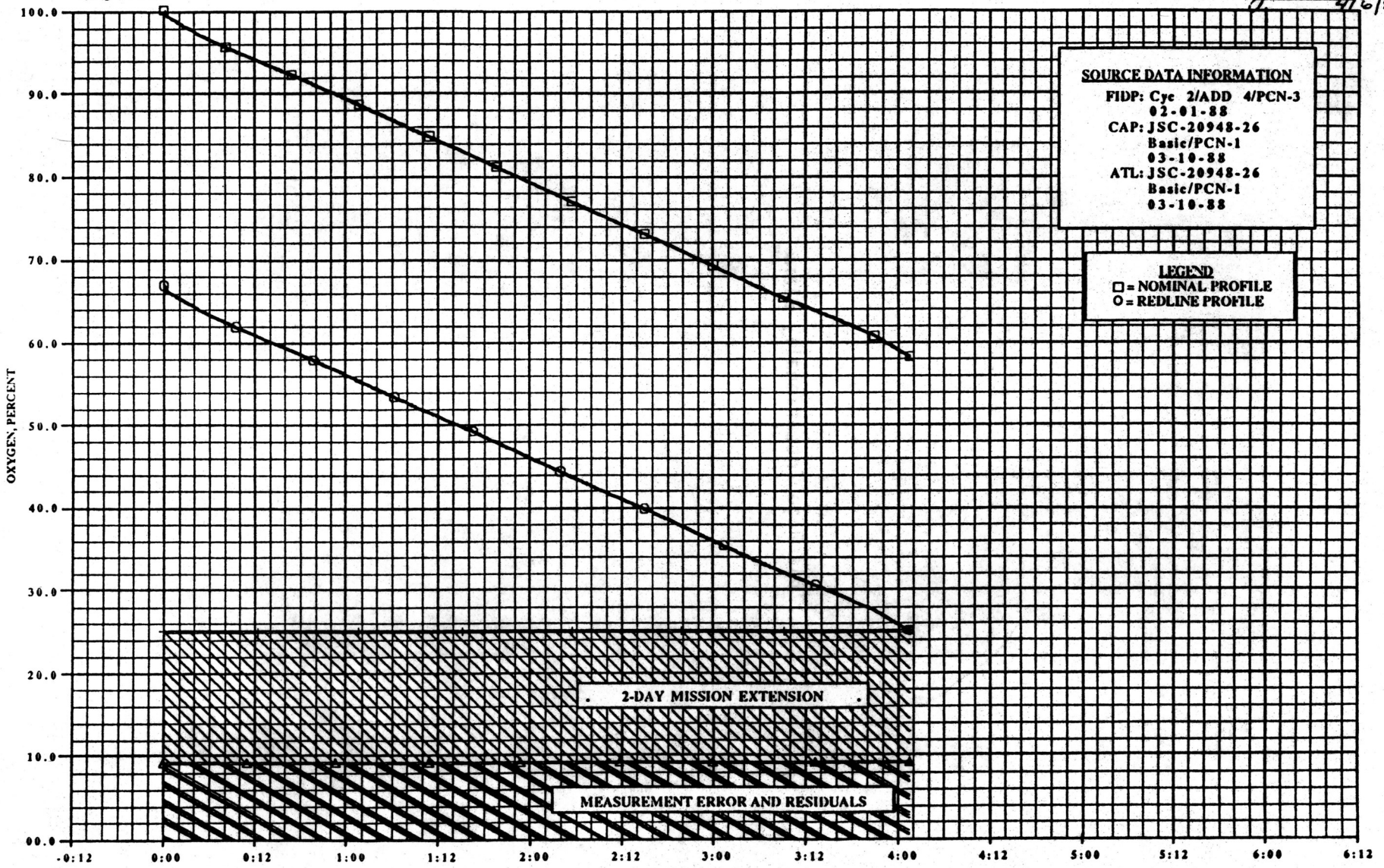


STS 26 CRYOGENIC HYDROGEN PROFILE

MISSIONS OPERATIONS DIRECTORATE
SYSTEMS DIVISION

R. D. PECHACEK
ANALYSIS DATE: 04-04-88
TRAJ CYCLE: OFP-2

DATA CONFIRMED J. Clark 4/6/88



STS 26 CRYOGENIC OXYGEN PROFILE

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The sections following this divider page
will not be included in flight copies.

CREW ACTIVITY PLAN NOTES
(CONSTRAINTS AND GUIDELINES)

A. FLIGHT DESCRIPTION

The STS-26 (OV-103) launch from KSC on October 4, 1988 (Cycle 3R) will be into a 160 nm orbit at an inclination of 28.5 degrees. The mission duration will be 4 days. Nominal landing occurs at EDW on October 8, 1988.

Landing opportunities are:

		Landing Orbit No.	Site	Local Time
Nominal	Primary	65	EDW	08:00
	Backup	66	EDW	09:36
	Weather Alt.	65	NOR	09:03
1 Day Late	Primary	81	EDW	08:13
	Backup	82	EDW	09:48
	Weather Alt.	81	NOR	09:15
2 Days Late	Primary	96	EDW	06:49
	Backup	97	EDW	08:25
	Weather Alt.	96	NOR	07:52

MAJOR EVENTS

LAUNCH (KSC)	October 4, 1988
MET (DD/HH:MM:SS)	0/00:00:00
Day of year	278
CDT/GMT	09:07/14:03
OMS-2	
MET (DD/HH:MM:SS)	0/00:42:00
DV (fps)	222
DT (MM:SS)	2:23
ORBIT ha/hp (nm)	159 x 161
TDRS/IUS DEPLOY (6A INSERTION)	
MET (DD/HH:MM:SS)	0/06:14
OMS SEPARATION BURN	
MET (DD/HH:MM:SS)	0/06:29
DV (fps)	31
DT (MM:SS)	00:19
ORBIT ha/hp (nm)	177 x 161
DEORBIT BURN	
MET (DD/HH:MM:SS)	03/23:54
DV (fps)	304
LANDING (EDW)	
MET (DD/HH:MM:SS)	04/00:57:00
Day of year	282
CDT/GMT	10:00/15:00

B. CREW

1. The crewman responsible for performing an EVA, should one become necessary, are: MS3 will be EV1, MS1 will be EV2, and PLT will be IV1

2. There will be 5 crewmen flying this mission, with each specialist assigned to the following tasks:

CDR - Overall mission decisions, vehicle control, GNC, ECLSS, C&W, DPS, Medical
PLT - APU/HYD, MPS, EPS, OMS, RCS, Earth Obs
MS1 - IUS/TDRS, OASIS, Crew Equipment
MS2 - Communications, SPOC/HP41, PLBD/RAD
MS3 - EMU, TV, Instrumentation FDF, IFM Habitability, Middeck Payloads

C. ORBITER SYSTEMS

1. Communications and Instrumentation

a. The Operational Instrumentation (OI) system will nominally be managed from the ground through uplink real-time commands coordinated with the crew.

b. There are 13 GSTDN sites available for on-orbit coverage: CAN, GDX, MIL (MLX), BDA, HAW, GWM, AGO, ACN, MAD (MAX), YAR, DKR, IOS, and VAN

c. There are 3 GSTDN sites available for real-time TV: GDX, MIL (MLX), and HAW.

d. There are 2 GSTDN sites available for UHF voice only: YAR, IOS

e. There are 4 SGLS sites available for on-orbit coverage during the TDRS/IUS mission: IOS, VTS, GTS, HTS.

f. TDRS-E is assumed to be in position (41 degrees W).

g. The only means available for HDR uplink (e.g., Teleprinter) while encrypted is through MIL, BDA and TDRS-E.

2. Guidance and Navigation

a. The Orbiter state vector must be uplinked whenever downtrack error in the on-board vector becomes greater than 20 nm, but is usually uplinked when errors are much greater than 5 nm. These are real-time calls. In addition, state vectors must be uplinked for specified targets when utilizing an Orbiting Vehicle as a TGT ID with Universal Pointing.

b. IMU alignments occur approximately every 12 hours in the morning and evening activities and prior to major events requiring low navigation uncertainty.

c. In order not to perturb the Tracking Arc before the deploy, the first IMU align will be in a bias -ZLV ±YVV attitude.

The orbiter will be biased in yaw assuring acquisition of stars for the IMU align before the IUS deploy.

3. Environmental Control and Life Support Subsystem (ECLSS)

   a. The CO2 absorbers are installed for launch and entry and are alternately replaced on-orbit as required.

   b. There are four supply water tanks and one waste water tank which are loaded for launch with volumes sufficient to meet an orbit 3 launch day deorbit with PLBDs failed closed. If waste water production exceeds storage capacity, a real-time call will be made to perform a waste tank dump. Normally two supply water dumps will occur per flight day. A real-time call will be made prior to each to inform the crew whether a dump is required, and to what level. Tanks A and B will be dumped to a level that will allow the tanks to be full prior to the next daily group of deorbit opportunities.

4. DC Utility Power Usage

   The following table is the DC Utility Power Outlet Schedule. This table shows the times of outlet reconfigurations during the mission.

STS-26 DC UTILITY POWER OUTLET SCHEDULE

MET / OUTLET	PRELAUNCH	POST INSERTION	ON ORBIT			DEORBIT PREP
		0/02:00	0/08:45	0/09:00	3/19:00	3/23:00
019	PLT*	-----	-----	-----	-----	PLT*
MO52J	MS3*	----	----	ADSF	----	MS3*
F1	----	----	----	----	----	----
MO13Q	PDB**	----	PVTOS	PVTOS	PDB**	PDB**
A11	MS1*, MS2*	----	----	----	----	MS1*,MS2*
A15	CDR*	TLPR	TLPR	TLPR	TLPR	CDR*
MO30F	----	PDB**	PDB**	PDB**	----	----

NOTES:

* Crewman suit fan
** Power distribution box with ARC and PCG
If an outlet column is blank, the outlet is not in use

D. TEXT UPLINK SYSTEM

1. The teleprinter (TPR) will provide an on-orbit capability to receive and reproduce text-only data (such as procedures, weather data, and CAP updates or changes) from MCC. The TPR uses S-Band and is not dependent on TDRS Ku-Band. TPR uplink requires 1 to 2.5 minutes per message, depending upon the number of lines (up to 66). Activation includes powering up the unit during Post Insertion. The TPR will remain on continuously until deactivation prior to seat ingress on entry day.

E. TELEVISION/PHOTOGRAPHY

1. The CCTV systems provide two color wide-angle cameras for in-cabin coverage. There will also be four PLBD TV cameras and two Remote Manipulator System (RMS) TV cameras (RMS Elbow, RMS end effector). The two RMS TV cameras will only be available if the RMS is carried on the flight. There are three different lens assemblies for the PLB and RMS TV cameras (color lens assembly, monochrome lens assembly and wide angle lens assembly). The type of lens assembly for each PLB and RMS TV camera can be selected pre-flight by the payload customer.

2. There is a video tape recorder available with 30 min cassettes.

3. 35mm, 16mm, and 70mm camera systems are available.

F. PAYLOADS

1. TDRS (Tracking and Data Relay Satellite)

The TDRS-C is a communication satellite which is the second of two spacecraft launched in the process of assembling the Tracking and Data Relay Satellite System. The system will provide a high-capacity communication and data link with the STS as well as other spacecraft and launch vehicles. TDRS-A was launched on STS-6. The nominal IUS/TDRS-C deployment opportunity occurs 60 minutes prior to node 6A (ascending) at 0/6:14 MET. Backup opportunities occur prior to 7A and 16A. A contingency opportunity occurs 60 minutes prior to 8D (descending).

2. IUS (Inertial Upper Stage)

The IUS is a two-stage solid rocket, inertially stabilized upper stage which will place TDRS-C in a geosynchronous orbit. The IUS ignites its first stage (SRM-1) for transfer orbit insertion 60 minutes after TDRS-C/IUS deployment. The second burn (SRM-2) occurs approximately 7 hours after deployment, resulting in a 0 degree inclination, geosynchronous orbit at 178 degree W longitude for the 6A deployment opportunity.

3. OASIS-I (Orbiter Experiments Autonomous Supporting Instrumentation System)

The OASIS-I payload will collect environmental data for Orbiter primary payloads. OASIS is capable of collecting a variety of environmental parameters based on specific transducer configurations for each flight. For STS-26, OASIS is configured to interface with TDRS-C/IUS. OASIS has transducers/sensors mounted on the forward and aft IUS ASE to measure thermal, acoustic, vibration, stress, and acceleration data.

4. ADSF (Automated Directional Solidification Furnace)

The ADSF is a furnace facility designed to conduct materials processing experiments. It takes the space of 5 middeck lockers. It consists of a furnace container which houses 4 samples, a Control Electronics Container (CEC), and a Middeck Electronics Module (MEM). The 4 samples will run for 10 hours 30 minutes each.

5. PVTOS (Physical Vapor Transport of Organic Solids)

PVTOS is an experiment which will observe and study sublimation of 9 organic solids in a micro-g environment via gaseous diffusion. It takes the space of 3 Middeck lockers and consists of a Experiment Apparatus Container (EAC), and a Generic Electronics Module (GEM). Each of the 9 cells takes 5 hours of processing.

6. ARC (Aggregation of Red Blood Cells)

The ARC payload will conduct experiments which will supply information on the kinetics of aggregation of human red blood cells, the morphology of red blood cell aggregates, and the viscosity of whole blood at lower and higher flow rates. It consists of 2 sealed packages, the Experiment Apparatus Container (EAC) and the Electronics Equipment Package (EEP). It takes the place of 3 middeck lockers. The experiment run time is 8 hours.

7. IEF (Isoelectric Focusing Experiment)

IEF is a payload which will evaluate the effect of electro-osmosis on isoelectric focusing in the absence of gravity. The IEF is a completely self-contained assembly which takes up 1 Middeck locker. Experiment duration is 1.5 hours.

8. MLE (Mesoscale Lightning Experiment)

The objective of MLE is to photograph large scale upper atmospheric lightning using the Cargo Bay cameras and a 35 mm camera. It is a target of opportunity observation where the crew will document lightning phenomenon at one of 6 designated areas. It requires 2 crewmen to make the observation. Observations are to be made on at least 2 night passes per flight day.

9. ELRAD (Earth Limb Radiance Experiment)

The ELRAD payload will measure the radiance of twilight sky for various positions of the sun from sunset (and sunrise) to 9 degrees below the earth's horizon. It requires 1 crewman to perform the experiment, a 35 mm camera with an 85 mm lens and 3 photographic sequences (1 sunrise and 2 sunsets).

10. IRCFE (Infrared Communication Flight Experiment)

The purpose of this payload is to demonstrate the use of infrared communication. This system will replace the radio frequency communication system used by 1 crewman for a 2 hour period. Operation should occur during the passage through the South Atlantic Anomaly.

11. PPE (Phased Partitioning Experiment)

The PPE payload will document the phenomena of surface tension effects on mixed fluids in the absence of gravity. The experiment consists of a module with 15 chambers of mixed fluids. One crewman will shake up the module and document the separation of the fluid at intervals of time.

12. SSIP 82-5, 82-4 (Shuttle Student Involvement Projects)

Student experiment 82-4 is called "The Effect of Weightlessness on Grain Formation and Strength in Metals". Its objective is to observe the transformation and resolidification of Titanium alloys in a zero-g environment. It utilizes 1/2 a middeck locker. It contains 4 Titanium alloy samples contained in pyrex mounted on the experiment base plate. One crewman will send a 10 second charge through each of the wires and they will be analyzed after the mission.

Student experiment 82-5 is called "Utilizing a Semi-Permeable Membrane to Direct Crystal Growth in Zero-Gravity". Its objective is to observe and obtain crystal growth between 2 aqueous solutions in a deionized water solution. The experiment uses 1/2 middeck locker. It contains 3 crystal growth units. The unit will be activated by turning the handles on each end of the units. The Lead Acetate solution and the Potassium Iodide solution will mix in the deionized water and promote crystal growth. The crystal growth will be documented on video and analyzed post mission.

13. PCG (Protein Crystal Growth)

The objective of the PCG is to produce large, high quality crystals of selected proteins under controlled conditions in microgravity. The payload mounts in place of 1 middeck locker. Experiment operation consists of initiation of the crystal growth once on orbit, and photography at 24 hours intervals.

G. ON-ORBIT DSO'S

1. Salivary Pharmacokinetics of Scop-Dex (DSO 457)

The purpose of this DSO is to investigate the pharmacokinetics of scopolamine and dextroamphetamine during space flight. When the degree and nature of the pharmacokinetics are determined, the therapeutic consequences may be predicted. The crewmember will take the drug after an 8 hour fast, and take salivary samples at required intervals during the flight day.

2. Salivary Acetaminophen Pharmacokinetics (DSO 458)

This DSO investigates the pharmacokinetics of Acetaminophen (Tylenol). This drug is used for evaluation because it distributes into the saliva with a ratio similar to blood plasma. The crewmembers will take the Tylenol after an 8 hour fast and take salivary samples at specified intervals during the flight day.

3. Otolith Tilt-Translation Reinterpretation (DSO 459)

The objective of this DSO is to collect data which will allow development of a trainer to preadapt astronauts to the sensory changes produced by microgravity. Two crewmembers will work together to obtain data regarding their perceived position each flight day. One crewmember will wear the OTTR goggles for data collection of otolith response.

4. Changes in Total Body Water During Spaceflight (DSO 460)

The purpose of this DSO is to measure the changes in total body water that occur during spaceflight. These measurements will also prove valuable in future studies which will track fluid shifts among specific body fluid compartments. The procedure involves ingestion of a dose of water labeled with the stable isotope oxygen-18, followed by periodic collection of saliva samples to determine the concentration of labeled water after establishment of a steady-state distribution.

5. Documentary Television (DSO 901)

This DSO requires live television transmission or VTR dumps of crew activities and spacecraft functions which include: Payload Bay Views, TDRS-C/IUS Predeploy and Deploy Activities, VTR Downlink of Deploy Activities, In-Flight Crew Conference, and unscheduled TV Activities.

6. Documentary Motion Picture Photography (DSO 902)

This DSO requires documentary and public affair motion picture photography of significant activities which best depicts the basic capabilities of the Space Shuttle and key objectives. This DSO includes motion picture photography of TDRS-C/IUS Predeploy and Deploy Activities, Flight Deck Activities, Middeck Activities, and any unscheduled Motion Picture Photography.

7. Documentary Still Photography (DSO 903)

This DSO requires still photography of crew activities in the orbiter, spacecraft accommodations and mission related scenes of general public and historical interest. Still photography with 70mm format for exterior photography and 35mm format for interior photography is required.

H. ON-ORBIT DTOs

1. Cabin Air Monitoring (DTO 623)

This DTO will use the solid sorbent sampler to continuously sample the Orbiter atmosphere throughout the flight. The solid sorbent sampler is to be flown on first flights of a new vehicle or after extensive non-metallic materials refurbishment in the Orbiter cabin.

2. Attitude Match Update (DTO 787)

Downlink Orbiter and IUS data will be compared at 6 points during the predeploy timeline. CSTC will receive the data and test and verify the new procedures for evaluating and correcting alignment errors onboard the IUS.

I. TIMELINE FORMATS

1. The timeline formats used in this Crew Activity Plan are based on JSC document 19933: Timeline Format Definitions and Standard Notes, Revision B, May 25, 1987.

STS-26 DAP BOOK

DAP A CONFIGURATIONS

	A1*	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
TRANSLATION											
PULSE ft/sec	0.10	0.10	0.10	0.10	0.10	0.10		0.10	0.10	0.05	0.25
ROTATION											
DSC RT NORM °/sec	0.200	0.400	0.200	0.200	0.200	0.200		0.500	0.200	0.200	0.200
VERN °/sec	0.200	0.400	0.200	0.008	0.200	0.200		0.200	0.200	0.200	0.200
PULSE NORM °/sec	0.10	0.10	0.30	0.10	0.10	0.10		0.10	0.10	0.10	0.05
VERN °/sec	0.010	0.010	0.010	0.010	0.050	0.010		0.010	0.010	0.010	0.010
COMP NORM °/sec	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00
VERN °/sec	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
DEADBAND											
ATT NORM (deg)	5.00	1.00	5.00	1.00	5.00	5.00		3.00	2.00	2.00	1.00
VERN (deg)	1.000	1.000	1.000	0.070	1.000	1.000		1.000	1.000	1.000	1.000
RATE NORM °/sec	0.20	0.20	0.20	0.20	0.20	0.20		0.20	0.20	0.20	0.20
VERN °/sec	.020	.020	.020	.010	.020	.020		.020	.020	.020	.010
JET OPT											
P	1	1	3	1	1	3		1	1	1	1
Y	1	1	3	3	1	3		1	1	1	1
CNTL ACCEL	0	0	0	0	0	0		0	0	0	0

*I-LOADED OPS-2 DAP Configuration

DAP B CONFIGURATIONS

	B1*	B2	B3	B4	B5	B6	B7	B8
TRANSLATION								
PULSE ft/sec	0.02	0.02	0.02	0.02	0.02	0.05	0.01	
ROTATION								
DSC RT NORM °/sec	0.500	0.200	0.200	0.200	0.200	0.500	0.200	
VERN °/sec	0.200	0.200	0.200	0.008	0.016	0.200	0.200	
PULSE NORM °/sec	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
VERN °/sec	0.002	0.002	0.002	0.002	0.002	0.002	0.002	
COMP NORM °/sec	.00	.00	.00	.00	.00	.00	.00	
VERN °/sec	.000	.000	.000	.000	.000	.000	.000	
DEADBAND								
ATT NORM (deg)	3.00	3.00	3.00	0.30	3.00	2.00	2.00	
VERN (deg)	1.000	1.000	1.000	0.100	0.033	1.000	1.000	
RATE NORM °/sec	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
VERN °/sec	.020	.020	.020	.010	.020	.020	.020	
JET OPT								
P	1	3	1	3	3	1	1	
Y	1	3	1	3	3	1	1	
CNTL ACCEL	0	0	0	0	0	0	0	

*I-LOADED OPS-2 DAP Configuration

DAP BOOK

HOOK
VELCRO

CAP/26/0/BAS

UNIV PTG	
TGT ID = 1	Orbiting Vehicle
= 2	Earth ctr
= 3	Earth tgt Input LAT (±90) LON (±180, + = East) ALT (-3444.0 to 20000.0 nm)
= 4	Sun ctr
= 5	Celestial tgt Input RA (0-359.99) DEC (±90)
= 11-110	Nav Stars
BODY VECT = 1	+X*
= 2	-X*
= 3	-Z*
= 4	PTC (~2° below +X)*
= 5	Optional Input P (0-359.99) Y (270-359.99,0-90)
* input OM →	OM (0-359.99)
MON AXIS = 1	+X
2	-X

CAP/26/0/BAS

G20 DAP CONFIG			
CNTL ACCEL = 0	Orbiter alone	JET OPT = 1	Normal
= 1	thru 5 not used	= 2	Nose only
		= 3	Tail only

TOP

DAP	PURPOSE
A1	- NOMINAL IMU ALIGN LOSS OF VERN (NOSE & TAIL)
A2	- PTC
A3	- RCS HOT FIRE
A4	- GG
A5	- IMU ROTATION
A6	- LOSS OF VERN (TAIL ONLY)
A7	- (Blank)
A8	- PRE/POST DEPLOY
A9	- RENDEZVOUS
A10	- PROX OPS
A11	- IUS DEPLOY

CAP/26/0/BAS

A1

TOP

DAP A1

PURPOSE:

NOMINAL
IMU ALIGN
LOSS OF VERN
(NOSE & TAIL)

A1

		TRANSLATION	
0.10	1	PULSE	
		ROTATION	
0.200	2	DSC RT	NORM
0.200	3		VERN
0.10	4	PULSE	NORM
0.010	5		VERN
.00	6	COMP	NORM
.000	7		VERN
		DEADBAND	
5.00	8	ATT	NORM
1.000	9		VERN
0.20	10	RATE	NORM
.020	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

CAP/26/0/BAS

A2

TOP

TOP

A1

DAP A2

PURPOSE:

PTC

A2

			TRANSLATION
0.1 0	1	PULSE	
			ROTATION
0.4 0 0	2	DSC RT	NORM
0.4 0 0	3		VERN
0.1 0	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0	6	COMP	NORM
.0 0 0	7		VERN
			DEADBAND
1.0 0	8	ATT	NORM
1.0 0 0	9		VERN
0.2 0	10	RATE	NORM
.0 2 0	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

CAP/26/0/BAS

A3

TOP

TOP

A2

DAP A3

PURPOSE:

RCS HOT FIRE

A3

			TRANSLATION
0.1 0	1	PULSE	
			ROTATION
0.2 0 0	2	DSC RT	NORM
0.2 0 0	3		VERN
0.3 0	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0	6	COMP	NORM
.0 0 0	7		VERN
			DEADBAND
5.0 0	8	ATT	NORM
1.0 0 0	9		VERN
0.2 0	10	RATE	NORM
.0 2 0	11		VERN
3	12	JET OPT	P
3	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

CAP/26/0/BAS

A4

TOP

TOP

A3

DAP A4

PURPOSE:

GG

A4

			TRANSLATION
0.10	1	PULSE	
			ROTATION
0.200	2	DSC RT	NORM
0.008	3		VERN
0.10	4	PULSE	NORM
0.010	5		VERN
.00	6	COMP	NORM
.000	7		VERN
			DEADBAND
1.00	8	ATT	NORM
0.070	9		VERN
0.20	10	RATE	NORM
.010	11		VERN
1	12	JET OPT	P
3	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

CAP/26/0/BAS

A5

TOP

TOP

A4

DAP A5

PURPOSE:

IMU ROTATION

A5

			TRANSLATION
0.10	1	PULSE	
			ROTATION
0.200	2	DSC RT	NORM
0.200	3		VERN
0.10	4	PULSE	NORM
0.050	5		VERN
.00	6	COMP	NORM
.000	7		VERN
			DEADBAND
5.00	8	ATT	NORM
1.000	9		VERN
0.20	10	RATE	NORM
.020	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

CAP/26/0/BAS

A6

TOP

TOP

A5

DAP A6

PURPOSE:

LOSS OF VERN
(TAIL ONLY)

CAP/26/0/BAS

A6

		TRANSLATION	
0.1 0	1	PULSE	
		ROTATION	
0.2 0 0	2	DSC RT	NORM
0.2 0 0	3		VERN
0.1 0	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0	6	COMP	NORM
.0 0 0	7		VERN
		DEADBAND	
5.0 0	8	ATT	NORM
1.0 0 0	9		VERN
0.2 0	10	RATE	NORM
.0 2 0	11		VERN
3	12	JET OPT	P
3	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

A7

TOP

A6

DAP A7

PURPOSE: (Blank)

CAP/26/0/BAS

A7

		TRANSLATION	
_._ _	1	PULSE	
		ROTATION	
_._ _ _	2	DSC RT	NORM
_._ _ _	3		VERN
_._ _	4	PULSE	NORM
_._ _ _	5		VERN
._ _	6	COMP	NORM
._ _ _	7		VERN
		DEADBAND	
_ _._ _	8	ATT	NORM
_ _._ _ _	9		VERN
_._ _	10	RATE	NORM
._ _ _	11		VERN
_	12	JET OPT	P
_	13		Y
_	14	CNTL ACCEL	

CAP/26/0/BAS

A8

TOP

TOP

A7

DAP A8

PURPOSE:

PRE/POST DEPLOY

A8

		TRANSLATION	
0.10	1	PULSE	
		ROTATION	
0.500	2	DSC RT	NORM
0.200	3		VERN
0.10	4	PULSE	NORM
0.010	5		VERN
.00	6	COMP	NORM
.000	7		VERN
		DEADBAND	
3.00	8	ATT	NORM
1.000	9		VERN
0.20	10	RATE	NORM
.020	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

CAP/26/0/BAS

A9

TOP

TOP

A8

DAP A9

PURPOSE:

RENDEZVOUS

A9

		TRANSLATION	
0.10	1	PULSE	
		ROTATION	
0.200	2	DSC RT	NORM
0.200	3		VERN
0.10	4	PULSE	NORM
0.010	5		VERN
.00	6	COMP	NORM
.000	7		VERN
		DEADBAND	
2.00	8	ATT	NORM
1.000	9		VERN
0.20	10	RATE	NORM
.020	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

CAP/26/0/BAS

A10

TOP

TOP

A9

DAP A10

PURPOSE:

PROX OPS

CAP/26/0/BAS

A10

		TRANSLATION	
0.0 5	1	PULSE	
		ROTATION	
0.2 0 0	2	DSC RT	NORM
0.2 0 0	3		VERN
0.1 0	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0	6	COMP	NORM
.0 0 0	7		VERN
		DEADBAND	
2.0 0	8	ATT	NORM
1.0 0 0	9		VERN
0.2 0	10	RATE	NORM
.0 2 0	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

TOP

A10

DAP A11

PURPOSE:

IUS DEPLOY

CAP/26/0/BAS

A11

		TRANSLATION	
0.2 5	1	PULSE	
		ROTATION	
0.2 0 0	2	DSC RT	NORM
0.2 0 0	3		VERN
0.0 5	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0	6	COMP	NORM
.0 0 0	7		VERN
		DEADBAND	
1.0 0	8	ATT	NORM
1.0 0 0	9		VERN
0.2 0	10	RATE	NORM
.0 1 0	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/26/0/BAS

TOP

TOP

A11

DAP	PURPOSE
B1	- NOMINAL PRCS IMU ALIGN OMS & RCS BURNS
B2	- LOSS OF VERN (TAIL ONLY)
B3	- LOSS OF VERN (NOSE & TAIL) GG MNVR
B4	- SSUS DEPLOY
B5	- COAS CAL
B6	- RENDEZVOUS
B7	- PROX OPS
B8	- (Blank)

CAP/26/O/BAS

CAP/26/O/BAS

B1

TOP

TOP

DAP B1

PURPOSE:

NOMINAL
PRCS IMU ALIGN
OMS & RCS BURNS

B1

TRANSLATION			
PULSE		15	0.0 2
ROTATION			
DSC RT	NORM	16	0.5 0 0
	VERN	17	0.2 0 0
PULSE	NORM	18	0.0 4
	VERN	19	0.0 0 2
COMP	NORM	20	.0 0
	VERN	21	.0 0 0
DEADBAND			
ATT	NORM	22	3.0 0
	VERN	23	1.0 0 0
RATE	NORM	24	0.2 0
	VERN	25	.0 2 0
JET OPT	P	26	1
	Y	27	1
CNTL ACCEL		28	0

CAP/26/O/BAS

CAP/26/O/BAS

B2

TOP

TOP

B1

DAP B2

PURPOSE:

LOSS OF VERN
(TAIL ONLY)

CAP/26/0/BAS

B2

TRANSLATION			
PULSE		15	0.0 2
ROTATION			
DSC RT	NORM	16	0.2 0 0
	VERN	17	0.2 0 0
PULSE	NORM	18	0.0 4
	VERN	19	0.0 0 2
COMP	NORM	20	.0 0
	VERN	21	.0 0 0
DEADBAND			
ATT	NORM	22	_ 3.0 0
	VERN	23	_ 1.0 0 0
RATE	NORM	24	0.2 0
	VERN	25	.0 2 0
JET OPT	P	26	3
	Y	27	3
CNTL ACCEL		28	0

CAP/26/0/BAS

B3

TOP

TOP

B2

DAP B3

PURPOSE:

LOSS OF VERN
(NOSE & TAIL)
GG MNVR

CAP/26/0/BAS

B3

TRANSLATION			
PULSE		15	0.0 2
ROTATION			
DSC RT	NORM	16	0.2 0 0
	VERN	17	0.2 0 0
PULSE	NORM	18	0.0 4
	VERN	19	0.0 0 2
COMP	NORM	20	.0 0
	VERN	21	.0 0 0
DEADBAND			
ATT	NORM	22	_ 3.0 0
	VERN	23	_ 1.0 0 0
RATE	NORM	24	0.2 0
	VERN	25	.0 2 0
JET OPT	P	26	1
	Y	27	1
CNTL ACCEL		28	0

CAP/26/0/BAS

B4

TOP

TOP

B3

DAP B4

PURPOSE:

SSUS DEPLOY

CAP/26/0/BAS

TOP

B4

TRANSLATION				
PULSE		15		0.0 2
ROTATION				
DSC RT	NORM	16		0.2 0 0
	VERN	17		0.0 0 8
PULSE	NORM	18		0.0 4
	VERN	19		0.0 0 2
COMP	NORM	20		.0 0
	VERN	21		.0 0 0
DEADBAND				
ATT	NORM	22		0.3 0
	VERN	23		0.1 0 0
RATE	NORM	24		0.2 0
	VERN	25		.0 1 0
JET OPT	P	26		3
	Y	27		3
CNTL ACCEL		28		0

CAP/26/0/BAS

B5

TOP

B4

DAP B5

PURPOSE:

COAS CAL

CAP/26/0/BAS

TOP

B5

TRANSLATION				
PULSE		15		0.0 2
ROTATION				
DSC RT	NORM	16		0.2 0 0
	VERN	17		0.0 1 6
PULSE	NORM	18		0.0 4
	VERN	19		0.0 0 2
COMP	NORM	20		.0 0
	VERN	21		.0 0 0
DEADBAND				
ATT	NORM	22		3.0 0
	VERN	23		0.0 3 3
RATE	NORM	24		0.2 0
	VERN	25		.0 2 0
JET OPT	P	26		3
	Y	27		3
CNTL ACCEL		28		0

CAP/26/0/BAS

B6

TOP

TOP

B5

DAP B6

PURPOSE:

RENDEZVOUS

CAP/26/0/BAS

TOP

B6

B6

TRANSLATION			
PULSE		15	0.0 5
ROTATION			
DSC RT	NORM	16	0.5 0 0
	VERN	17	0.2 0 0
PULSE	NORM	18	0.0 4
	VERN	19	0.0 0 2
COMP	NORM	20	.0 0
	VERN	21	.0 0 0
DEADBAND			
ATT	NORM	22	_ 2.0 0
	VERN	23	_ 1.0 0 0
RATE	NORM	24	0.2 0
	VERN	25	.0 2 0
JET OPT	P	26	1
	Y	27	1
CNTL ACCEL		28	0

CAP/26/0/BAS

B7

TOP

B6

DAP B7

PURPOSE:

PROX OPS

CAP/26/0/BAS

TOP

B7

B7

TRANSLATION			
PULSE		15	0.0 1
ROTATION			
DSC RT	NORM	16	0.2 0 0
	VERN	17	0.2 0 0
PULSE	NORM	18	0.0 4
	VERN	19	0.0 0 2
COMP	NORM	20	.0 0
	VERN	21	.0 0 0
DEADBAND			
ATT	NORM	22	_ 2.0 0
	VERN	23	_ 1.0 0 0
RATE	NORM	24	0.2 0
	VERN	25	.0 2 0
JET OPT	P	26	1
	Y	27	1
CNTL ACCEL		28	0

CAP/26/0/BAS

B8

TOP

TOP

B7

DAP B8

PURPOSE: (Blank)

CAP/26/O/BAS

TOP

B8

B8

TRANSLATION			
PULSE		15	_._ _
ROTATION			
DSC RT	NORM	16	_._ _ _
	VERN	17	_._ _ _
PULSE	NORM	18	_._ _
	VERN	19	_._ _ _
COMP	NORM	20	._ _
	VERN	21	._ _ _
DEADBAND			
ATT	NORM	22	_ _._ _
	VERN	23	_ _._ _ _
RATE	NORM	24	_._ _
	VERN	25	._ _ _
JET OPT	P	26	_
	Y	27	_
CNTL ACCEL		28	_

CAP/26/O/BAS

CAP/26/O/BAS

TOP

TOP
BACK COVER 'DAP BOOK'

HOOK
VELCRO

CAP/26/0/BAS

STS-26 ATTITUDE TIMELINE

Attitude Timeline

MET	MNVR OPTION	DAP			E/S	REMARKS		EVENT
1								
0/01:10:00	TRK TGT=2	A1	DSC	.200	EARTH	LVLH	R+180	-ZLV
19:56	BV=3(90.00, .00)	AUTO	DB AT	5.00	T 90		P+ 0	NOSE SOUTH
	OM=261.00	NORM	DB RT	.20	P 0		Y+ 81	PLBD OPENING
2								
0/04:19:00	MNVR R+ 8.00	B1	DSC	.200	SUN			TDRS DIRECT
32:48	P+267.00	AUTO	DB AT	1.00	T 91			CHECK ATT
	Y+358.00	VERN	DB RT	.02	P 183			
3								
0/05:33:00	TRK TGT=4	A11	DSC	.200	SUN	INRTL	R+ 15	TDRS DEPLOY
34:54	BV=5(261.50, .00)	AUTO	DB AT	1.00	T 99		P+279	ATTITUDE
	OM=270.00	VERN	DB RT	.01	P 180		Y+339	
	DEPLOY 0/06:13:33							
4								
0/06:14:33	ROT	A11	DSC	.430		ROT	R+ 15	-2.2 FPS SEP
	BV=5(.00,270.00)	MAN	DB AT	1.00		START	P+279	AND BEGIN -70
		NORM	DB RT	.20		ATT	Y+339	DEGREE PITCH
5								
0/06:14:41	ROT	A11	DSC	.860		ROT	R+ 14	SEP CUTOFF
	BV=5(.00,270.00)	MAN	DB AT	1.00		START	P+275	CONTINUE -70
		NORM	DB RT	.20		ATT	Y+338	DEGREE PITCH
6								
0/06:15:59	CANCEL	A11	DSC	.200	SUN	INRTL	R+344	END OF -70
		MAN	DB AT	1.00	T 28		P+203	DEGREE PITCH
		NORM	DB RT	.20	P 180		Y+340	
7								
0/06:20:33	MNVR R+191.00	B1	DSC	.500	SUN	TIG		OMS SEP
25:16	P+ 13.00	AUTO	DB AT	3.00	T 143	0/06:28:33		ATTITUDE
	Y+338.00	NORM	DB RT	.20	P 109			
8								
0/06:28:59	TRK TGT=1	B1	DSC	.500	EARTH			IUS VIEWING
32:05	BV=3(90.00, .00)	AUTO	DB AT	3.00	T 90			ATTITUDE
	OM= .00	NORM	DB RT	.20	P 0			
9								
0/06:54:33	TRK TGT=1	B1	DSC	.500	SUN			WINDOW
07:00:22	BV=5(310.00, .00)	AUTO	DB AT	3.00	T 71			PROTECT
	OM= 22.73	NORM	DB RT	.20	P 145			ATTITUDE
10								
0/07:13:33	CANCEL	B1	DSC	.200	SUN	INRTL	R+102	INRTL HOLD
		MAN	DB AT	1.00	T 71		P+197	
		VERN	DB RT	.02	P 145		Y+ 58	
11								
0/08:18:00	MNVR R+ 50.00	A1	DSC	.200	SUN	STAR PR A1		IMU ALIGN
21:44	P+283.00	AUTO	DB AT	1.00	T 105			
	Y+ 76.00	VERN	DB RT	.02	P 115			
12								
0/08:40:00	TRK TGT=2	A1	DSC	.200	EARTH	LVLH	R+180	-ZLV NOSE FWD
51:47	BV=3(90.00, .00)	AUTO	DB AT	1.00	T 90		P+ 0	
	OM=180.00	VERN	DB RT	.02	P 0		Y+ 0	

ALL ATTITUDES IN MEAN OF 1950

Attitude Timeline

MET	MNVR OPTION		DAP		E/S	REMARKS	EVENT
1							
0/20:24:00	MNVR R+ 50.00	A1	DSC .200		SUN	STAR PR A1	IMU ALIGN
36:06	P+283.00	AUTO	DB AT 1.00		T 105	-Z COAS:16	COAS CAL
	Y+ 76.00	VERN	DB RT .02		P 115	-Y ST:37	
2							
0/20:50:00	TRK TGT=2	A1	DSC .200		EARTH	LVLH R+180	-ZLV NOSE FWD
21:01:48	BV=3(90.00, .00)	AUTO	DB AT 1.00		T 90	P+ 0	
	OM=180.00	VERN	DB RT .02		P 0	Y+ 0	
3							
0/23:45:00	MNVR R+ 62.00	A1	DSC .200		SUN		KU-BAND ATT
59:11	P+207.00	AUTO	DB AT 1.00		T 47		
	Y+ 24.00	VERN	DB RT .02		P 163		
4							
1/00:55:00	TRK TGT=2	A1	DSC .200		EARTH	LVLH R+180	-ZLV NOSE FWD
01:09:23	BV=3(90.00, .00)	AUTO	DB AT 1.00		T 90	P+ 0	
	OM=180.00	VERN	DB RT .02		P 0	Y+ 0	
5							
1/06:59:00	MNVR R+ 50.00	A1	DSC .200		SUN	STAR PR A1	IMU ALIGN
07:11:05	P+283.00	AUTO	DB AT 1.00		T 106		
	Y+ 76.00	VERN	DB RT .02		P 115		
6							
1/07:20:00	TRK TGT=2	A1	DSC .200		EARTH	LVLH R+180	-ZLV NOSE FWD
31:32	BV=3(90.00, .00)	AUTO	DB AT 1.00		T 90	P+ 0	
	OM=180.00	VERN	DB RT .02		P 0	Y+ 0	
7							
1/19:05:00	MNVR R+ 50.00	A1	DSC .200		SUN	STAR PR A1	IMU ALIGN
17:01	P+283.00	AUTO	DB AT 1.00		T 106	+X COAS:23	COAS CAL
	Y+ 76.00	VERN	DB RT .02		P 115		
8							
1/20:16:00	TRK TGT=2	A1	DSC .200		EARTH	LVLH R+161	ELRAD SUNSET
26:32	BV=5(17.40, .00)	AUTO	DB AT 1.00		T 17	P+286	
	OM=160.40	VERN	DB RT .02		P 359	Y+354	
9							
1/22:21:00	TRK TGT=2	A1	DSC .200		EARTH	LVLH R+ 18	ELRAD SUNRISE
32:46	BV=5(17.30, .00)	AUTO	DB AT 1.00		T 17	P+254	
	OM= 19.30	VERN	DB RT .02		P 2	Y+354	
10							
2/00:00:00	MNVR R+ 62.00	A1	DSC .200		SUN.		KU-BAND ATT
07:07	P+207.00	AUTO	DB AT 1.00		T 48		
	Y+ 24.00	VERN	DB RT .02		P 163		
11							
2/01:10:00	TRK TGT=2	A1	DSC .200		EARTH	LVLH R+180	-ZLV NOSE FWD
24:34	BV=3(90.00, .00)	AUTO	DB AT 1.00		T 90	P+ 0	
	OM=180.00	VERN	DB RT .02		P 0	Y+ 0	
12							
2/05:40:00	MNVR R+ 50.00	A1	DSC .200		SUN		IMU ALIGN
51:59	P+283.00	AUTO	DB AT 1.00		T 107		
	Y+ 76.00	VERN	DB RT .02		P 115		

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Attitude Timeline

MET	MNVR OPTION	DAP			E/S	REMARKS	EVENT
1							
2/06:00:00	TRK TGT=2	A1	DSC	.200	EARTH	LVLH R+180	-ZLV NOSE FWD
11:17	BV=3(90.00, .00)	AUTO	DB AT	1.00	T 90	P+ 0	
	OM=180.00	VERN	DB RT	.02	P 0	Y+ 0	
2							
2/17:46:00	MNVR R+ 50.00	A1	DSC	.200	SUN	STAR PR A1	IMU ALIGN
57:55	P+283.00	AUTO	DB AT	1.00	T 107		
	Y+ 76.00	VERN	DB RT	.02	P 115		
3							
2/18:05:00	TRK TGT=2	A1	DSC	.200	EARTH	LVLH R+180	-ZLV NOSE FWD
16:09	BV=3(90.00, .00)	AUTO	DB AT	1.00	T 90	P+ 0	
	OM=180.00	VERN	DB RT	.02	P 0	Y+ 0	
4							
2/22:25:00	MNVR R+ 62.00	A1	DSC	.200	SUN		KU-BAND ATT
39:46	P+207.00	AUTO	DB AT	1.00	T 49		
	Y+ 24.00	VERN	DB RT	.02	P 164		
5							
3/00:05:00	TRK TGT=2	A1	DSC	.200	EARTH	LVLH R+180	-ZLV NOSE FWD
19:46	BV=3(90.00, .00)	AUTO	DB AT	1.00	T 90	P+ 0	
	OM=180.00	VERN	DB RT	.02	P 0	Y+ 0	
6							
3/05:52:00	MNVR R+ 50.00	A1	DSC	.200	SUN	STAR PR A1	IMU ALIGN
06:03:50	P+283.00	AUTO	DB AT	1.00	T 108		
	Y+ 76.00	VERN	DB RT	.02	P 115		
7							
3/06:10:00	TRK TGT=2	A1	DSC	.200	EARTH	LVLH R+180	-ZLV NOSE FWD
21:01	BV=3(90.00, .00)	AUTO	DB AT	1.00	T 90	P+ 0	
	OM=180.00	VERN	DB RT	.02	P 0	Y+ 0	
8							
3/17:58:00	MNVR R+ 50.00	A1	DSC	.200	SUN	STAR PR A1	IMU ALIGN
18:09:44	P+283.00	AUTO	DB AT	1.00	T 108		
	Y+ 76.00	VERN	DB RT	.02	P 115		
9							
3/18:20:00	TRK TGT=4	A1	DSC	.200	SUN	INRTL R+ 30	TAIL SUN
26:43	BV=5(184.00, .00)	AUTO	DB AT	1.00	T 176	P+350	COLD SOAK
	OM=270.00	VERN	DB RT	.02	P 179	Y+ 12	
10							
3/21:00:00	MNVR R+344.00	A1	DSC	.200	SUN	-Z ST:26	D/O IMU ALIGN
05:52	P+310.00	AUTO	DB AT	1.00	T 138	-Y ST:14	
	Y+ 25.00	VERN	DB RT	.02	P 190		
11							
3/21:20:00	MNVR R+ 90.00	B1	DSC	.500	SUN	-Z ST:23	IMU VERIF
23:38	P+252.00	AUTO	DB AT	3.00	T 78	-Y ST:37	
	Y+356.00	NORM	DB RT	.20	P 104		
12							
3/21:30:00	MNVR R+ 61.00	B1	DSC	.500	SUN	TIG	DEORBIT ATT
32:29	P+179.00	AUTO	DB AT	3.00	T 15	3/23:54:30	
	Y+332.00	NORM	DB RT	.20	P 49		

ALL ATTITUDES IN MEAN OF 1950

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